

No. 65, Original

In the
Supreme Court of the United States

OCTOBER TERM, 1975

STATE OF TEXAS, *Plaintiff*

v.

STATE OF NEW MEXICO, *Defendant*
UNITED STATES OF AMERICA, *Intervenor*

**REPORT OF SPECIAL MASTER ON
OBLIGATION OF NEW MEXICO TO TEXAS
UNDER THE PECOS RIVER COMPACT**

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Special Master

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SUBMISSION OF REPORT

The order appointing the Special Master, 423 U.S. 942, directs him "to submit such reports as he may deem appropriate." This Report covers the Master's rulings on the water delivery obligation of New Mexico to Texas under the Pecos River Compact. A final resolution of this controlling legal issue, before protracted and costly river studies are undertaken, will promote judicial economy by substantial savings in both time and cost. The Master believes that the submission of the Report at this time is appropriate.

SUMMARY STATEMENT

The question is the meaning of the term "1947 condition" as used in the Compact.

Art. III(a) says that New Mexico shall not deplete the state line Pecos flow below that which "will give to

Texas a quantity of water equivalent to that available to Texas under the 1947 condition."

Art. II(g) defines "1947 condition" to mean that situation in the Pecos River Basin as "described and defined in the Report of the Engineering Advisory Committee."

Texas contends that the 1947 condition is immutably defined in a river routing study entitled "Summary of Operations 1947." A copy of that study is attached as Appendix A. The Master rejects the Texas contention. He believes that the word "situation" as used in Art. II(g) refers to a fact, or group of facts, having physical existence. The routing study is an assembly of numbers derived from recreated records to which are applied assumptions and algebraic equations to arrive at figures purportedly showing stream flow at various points and times. The study is artificial and contains errors. It does not define or describe any actuality.

New Mexico asserts that the 1947 condition means the uses which were then made of water in New Mexico. Reliance is placed on the Compact objective stated in Art. I "to protect the development within the States." The Master disagrees. The Compact apportionment is a prohibition against depletion. The New Mexico contention, if carried to its ultimate, would mean that in time of drought New Mexico could use all the water if that were needed to service New Mexico uses. New Mexico supports its position with the Review of Basic Data, "RBD," which was submitted to the Commission which administers the Compact. An RBD table, comparable to the 1947 routing study on which Texas relies, is appended as Appendix B.

An examination of Appendices A and B shows the complexity of the problem. The Compact requires, Art. VI(c), the use of the inflow-outflow method in making required determinations, including state line flow. That method contemplates the establishment of a standard relationship between inflow indices and outflow quantities. An-

nual relationships are compared to the standard to determine departures in deliveries. The engineer advisors to the Compact negotiators presented a document titled "Inflow-Outflow Manual" purportedly containing directions for Compact operation under the inflow-outflow method. The Master held that the Inflow-Outflow Manual had to be modified and corrected. Neither State objected to that conclusion. The result is that a new manual must be prepared and then new routing studies, comparable to Appendices A and B, will have to be made. The directions contained in the new manual will have to reflect the correct definition of the 1947 condition.

The Master defined the 1947 condition thus:

"The 1947 condition is that situation in the Pecos River Basin which produced in New Mexico the man-made depletions resulting from the stage of development existing at the beginning of the year 1947 and from the augmented Fort Sumner and Carlsbad acreage."

Each State has objected to the Master's definition.

I — INTRODUCTION

In this original jurisdiction suit, Texas sues New Mexico to secure performance of the Pecos River Compact and incidental relief. The right to performance depends upon the Compact obligation of New Mexico. Whatever the obligation may be, determination of compliance requires complex river studies performed under explicit directions. Without an authoritative decision on the obligation, conflicting directions and river studies are to be expected. The time required for their completion is variously estimated at 7 to 24 months, the cost at \$70,000 to \$200,000. The Master anticipates that these estimates are optimistic. After the validity of a study is determined, the extent and amount of any annual departure from the New Mexico obligation must be determined. The probability

of disputes over highly technical engineering problems, many of which are difficult, if not impossible, of judicial solution, suggests that lengthy hearings will be required.

The United States has been permitted to intervene. 423 U.S. 1085. The Compact, dated December 3, 1948 was ratified by each State and became effective with the consent of Congress. 63 Stat. 159. The Compact is set out as Exhibit "A" to the Texas complaint.

New Mexico denied any breach of the Compact and asserted affirmative defenses which were rejected by the Master in a Report which the Court received and ordered filed. 434 U.S. 809. The October 31, 1977 Pre-Trial Order, ¶ 4(a), (b), and (c), required the Master to first hear and determine three groups of issues: ¶ 4(a), the obligation of New Mexico to Texas under the Compact; ¶ 4(b), the modification or correction of 11 specified items in a river routing study; and ¶ 4(c), the modification or correction of a document entitled "Inflow-Outflow Manual."

This Report covers the ¶ 4(a) issues. On the ¶ 4(b) issues the Master made some rulings and on others held that the record was insufficient to sustain any conclusion. A separate Report will be made on the ¶ 4(b) issues. With regard to the ¶ 4(c) issues, the Master held that a new inflow-outflow manual is needed. Neither State objected to the Master's ¶ 4(c) rulings.

Although the Master believes that the determination of the New Mexico obligation presents a legal question, the factual background of the controversy is helpful to an understanding of the problem.

This Report contains the material presented in pp. 2-56 of the Master's February 2, 1979 Report with the deletion of portions which are irrelevant to the ¶ 4(a) issue. Following that material is the Master's Report covering his rulings on the objections and exceptions of the States to his ruling on the ¶ 4(a) issues.

The Compact was made on the framework of complex engineering reports which are contained in Senate Document 109, 81st Cong. 1st Sess. This report, hereafter S.D. 109, was made to the United States Senate by the Chairman of the Senate Interior and Insular Affairs Committee when the bill for grant of consent was before Congress. The parties have presented a mass of engineering testimony and exhibits. Analysis of the reports in S.D. 109, and of the evidence presented, is peculiarly and characteristically within the field of engineering, not of law. The Master, acting under the authority given him by the order of appointment, has employed and used a technical assistant. The Master relied on the analysis of many hydrologic and engineering problems by the technical assistant in arriving at his conclusions on the ¶ 4(b) and (c) issues. He did not rely on the work of the technical assistant in reaching his conclusions on the legal problem of the determination of the New Mexico obligation.

II — PHYSICAL DESCRIPTION OF PECOS RIVER BASIN

The Pecos River is an interstate stream which rises in north-central New Mexico and flows about 900 miles in a southerly direction through New Mexico and Texas to join the Rio Grande near Langtry, Texas. For most of its course, the stream flows through semi-arid regions where the demand for water exceeds the supply. Upstream depletion must be limited if downstream users are to be assured a fair share of the resource.

A comprehensive description of the physical characteristics of the Pecos River Basin is contained in Stip. Ex. 11(b), pp. 1-24. Precipitation in the valleys averages 11-14 inches annually. The stream flow is extremely variable and "in the absence of flood inflows, the normal base flow is entirely lost and re-established many times in the length of the stream." Id. at 12. Frequent floods occur causing reser-

voir sedimentation and channel deterioration. S.D. 109 at 2. Salt Cedar areas consume unusually large volumes of water. Id. Because of erratic flow, major reservoir development is required and some reservoirs leak badly. Id. at 3. Ground water, both artesian and shallow, is of special significance. Stip. Ex. 11(b), p. 14.

Three divisions of the basin should be noted.

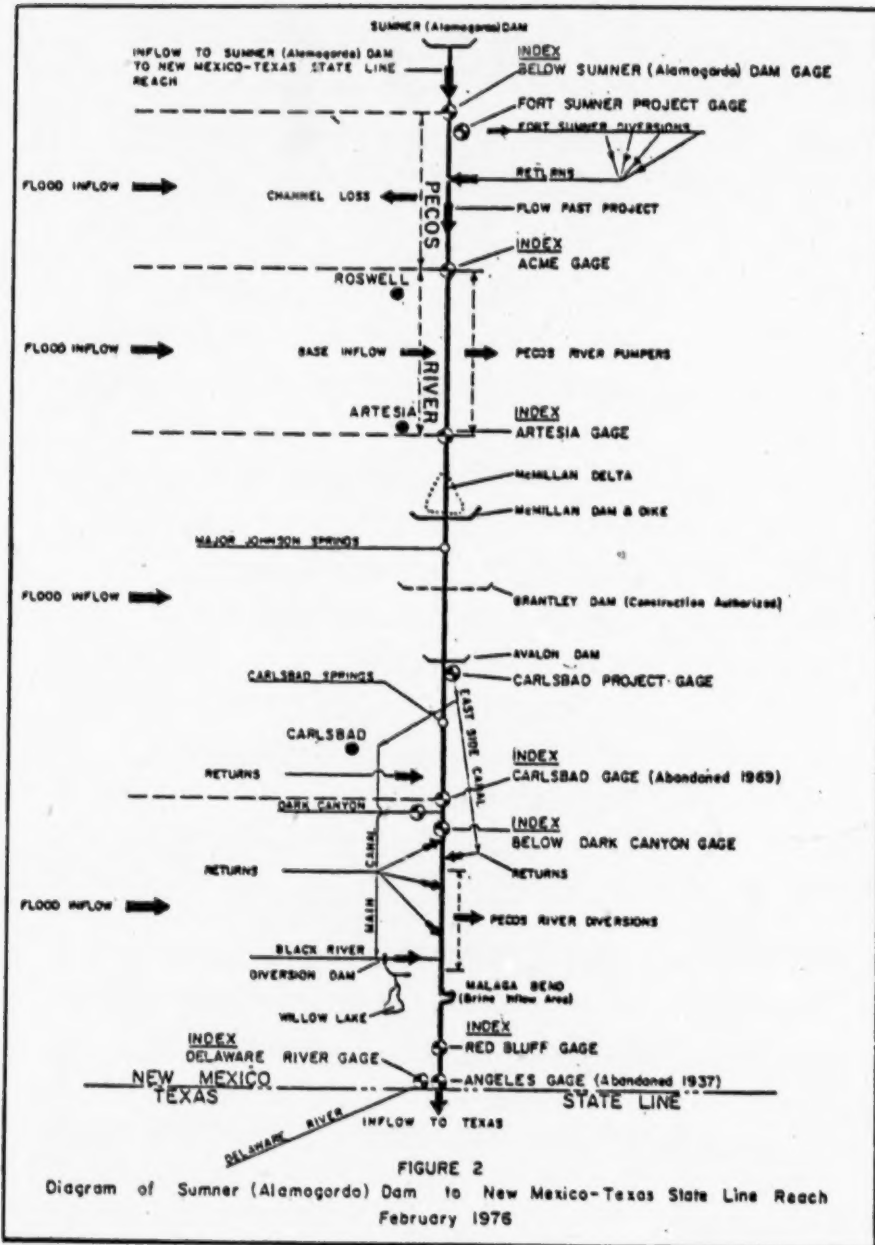
1 — The Upper Reach is that portion of the Pecos River drainage above Alamogordo Dam and Reservoir. Irrigation was practiced in this area by the Indians at the time of the Spanish conquest. S.D. 109, p. 2. Expansion of irrigation in this reach coincided with Spanish colonization. Id. With the exception of the development of the Storrie project about 1918, development in this reach has remained about the same as it was under the early Spanish occupation. Id. An agency of the United States is now constructing in this area the Los Esteros Reservoir for flood control, storage, and recreational purposes.

2 — The Middle Reach is that portion of the drainage between Alamogordo and the New Mexico-Texas state line. The controversy centers around the situation in this reach, which may be divided into subreaches, the most important of which are:

- (a) Alamogordo to Acme
- (b) Acme to Artesia
- (c) Artesia to Carlsbad
- (d) Carlsbad to state line (Red Bluff)

3 — The Lower Reach is that portion of the drainage below the New Mexico-Texas state line.

On the following page is a schematic presentation of the Middle Reach showing the relative locations of various points. It is taken from Stip. Ex. 10, Figure 2, p. 11. The second page following presents a Chronology of Development.



CHRONOLOGY OF DEVELOPMENT

1. 1894 McMillan Reservoir completed.
2. 1900-1915 Artesian well development period.
3. 1906 McMillan Reservoir rehabilitated.
4. 1915 First Salt Cedars observed.
5. 1918 Development of Storrie Project.
6. 1921-1923 Hagerman Canal started winter irrigation.
7. 1927 Beginning of shallow pumping.
8. 1931 First New Mexico underground water basin established — required permits.
9. 1935 Alamogordo Agreement.
10. 1935-1938 Rapid development of shallow pumping.
11. 1936 Red Bluff Reservoir completed.
12. 1937 Alamogordo Reservoir completed.
13. 1940-1966 Salt Cedars developed from 2,500 to 21,500 acres.
14. 1941-1942 McMillan Reservoir leakage relationship changed.
15. 1942 Pecos River Joint Investigation.
16. 1948-1953 Kaiser Channel construction.
17. 1951-1952 Fort Sumner rehabilitation.
18. 1967-1969 21,000 acres of Salt Cedar cleared.

The three principal communities in the Middle Reach and their 1970 populations are:

Roswell	—	33,908
Artesia	—	10,315
Carlsbad	—	21,297

The only significant industrial use of water is at a potash plant near Carlsbad.

With relation to irrigation, the engineers in their January 14, 1948 report, S.D. 109, p. 2, said:

"At the present time up to 210,000 acres of land are irrigated in the basin, of which 156,000 acres are located in New Mexico and up to 54,000 acres in Texas. Of the 156,000 acres in New Mexico, 43,600 acres are irrigated by diversions from the main stream. The remainder is irrigated by ground water or by tributaries. In Texas up to 33,000 acres are irrigated by waters of the main stream."

The principal irrigation developments in the Middle Reach are in the Fort Sumner, Roswell, and Carlsbad areas. S.D. 109, p. 2.

The Fort Sumner project began about 1863 and was rehabilitated by the Bureau of Reclamation in 1906. Id.

Irrigation in the Roswell area by surface diversions began in the period 1889-1904 and was augmented by use of artesian water starting in 1891 and by pumping of shallow water after 1927. Id.

The Carlsbad area irrigation began about simultaneously with that in the Roswell area and was served by the McMillan and Avalon reservoirs which were completed about 1893. Id. at 3. Deterioration of these reservoirs resulted in the construction of Alamogordo reservoir in 1937 and the takeover by the Bureau of Reclamation of the Carlsbad project.

Surface inflow to the Middle Reach is designated as the Alamogordo flow which means the river flow of the Pecos immediately below the Alamogordo Dam. In the evidence reference is sometimes made to the Guadalupe Gage which was submerged by the filling of Alamogordo Reservoir. The name Alamogordo has been changed to Sumner. To avoid confusion the Master has used Alamogordo throughout this Report.

Middle Reach outflow is measured at Red Bluff reservoir located near the state line. It was constructed in 1936 as a Public Works Administration project to store water for use in Texas. *Id.* at 5. The Delaware River originates in Texas and flows into Red Bluff reservoir above the state line. For operational purposes, the Delaware flow plus the Pecos flow into the reservoir equate to the flow at Red Bluff. At times reference is made to the Angeles Gage which is now submerged by Red Bluff reservoir.

III — THE CONTROVERSY

Interstate controversies over the Pecos have existed for more than 60 years. The desire of Texas for a state line reservoir to regulate water for Texas use resulted in a 1914 report by the United States Reclamation Service. Because of interstate problems, a Compact Commission was created in 1923 by enabling acts of New Mexico and Texas legislatures. In 1925 the Commission signed a Compact which was ratified by Texas. The New Mexico legislature also ratified, but the governor vetoed. Texas then repealed its ratification.

In 1931 the Texas legislature authorized a suit against New Mexico over the division of Pecos River water. The suit was never filed. Problems over the river, involving not only the two States but also the United States, became increasingly acute and culminated in a cooperative investigation under the leadership of the National Resources Planning Board. A report styled "The Pecos River Joint Investigation," PRJI, was presented in October, 1942 and plays an important part in subsequent studies and reviews of Pecos River problems. The report is found in the record as Stip. Ex. 11 (b).

Pursuant to authorizing legislation of each State, the Pecos River Compact Commission was created in 1942. That Commission drafted the Pecos River Compact which

was ratified by the New Mexico legislature on February 9, 1949, Laws of N. Mex. 1949, p. 31, and by the Texas legislature on March 4, 1949, Gen. L. 1949, p. 51. The Congress of the United States gave its consent, as required by the United States Constitution, Art. I, § 10, Cl. 3, on June 9, 1949, 63 Stat. 159.

IV — COMPACT NEGOTIATIONS

A — Preliminary.

The Pecos River Compact Commission held its first meeting on February 9, 1943. The Commission was composed of one voting representative each of the United States, New Mexico and Texas. The minutes of the negotiators are contained in Stip. Ex. 4(a). Unproductive meetings were held for several years. An engineering advisory committee was created under the chairmanship of Royce J. Tipton, the engineering advisor to the federal representative. The engineers prepared a report dated January 14, 1948 which was submitted to the negotiators at meetings held in March and November, 1948, and which was supplemented by a report presented to the December 3, 1948 meeting. Also presented by the engineers to the December meeting was a document styled "Manual of Inflow-Outflow Methods of Measuring Changes in Stream-Flow Depletion."

In its search for a method of apportioning the water of this inconstant stream, the engineers explored many possibilities. They reported, S.D. 109, p. XXXIII, that: "A compact based on an allocation of water on a straight-line percentage basis is not feasible or practical." The report also says, *Id.* at XXXIV:

"A compact in any basin, based on irrigated acreage, might be unfair to any or all parties to the compact. Depletion at a given point on a stream is not related in direct proportion to the irrigated area above that point."

The engineers recommended, and the negotiating commission adopted, the inflow-outflow method of apportionment, which is described thus in S.D. 109, p. 149:

"The inflow-outflow method involves the determination of the correlation between an index of the inflow to a basin as measured at certain gaging stations and the outflow from the basin."

B — Reports of the Engineers.

The engineers recommended apportionment "based upon relations between certain water supply indexes and the state line flows." S.D. 109, p. XXXIV. This is the inflow-outflow method which is discussed in the Inflow-Outflow Manual prepared by the engineers and found in S.D. 109, pp. 145-172. The negotiators adopted the inflow-outflow method of apportionment. See Compact Art. VI(c) and S.D. 109, pp. 124 and 126-127.

The engineers made a comprehensive analysis of the river under various assumed conditions. Their work was summarized in a number of routing studies. A routing study is a mathematical model of the river which numerically presents the flow of the river at given points and times under assumed conditions. The presented flows came in large part from records of the United States Geological Survey, U.S.G.S., and are recreated and used for computations on the basis of assumptions. The routing studies do not reflect actual conditions.

The computations are made under various hydrologic and mathematic procedures. One, known as water budget, analyzes a particular reach of the river between two gaging stations. The upstream station measures the main stream inflow and the downstream station measures the outflow.

The gain to the river from additions less depletions is considered as flood inflow.

Two procedures are often used to establish channel loss. Both depend on a relationship of stream flow at a given point and channel loss downstream from that point. The first procedure requires the drawing of a curve that envelopes most of the data points. Generally, this procedure overestimates the channel loss. The second procedure draws a best fit curve through all data points to establish an average relationship which best represents channel loss over a long period of time.

Another procedure is the scalping of hydrographs. A graph is drawn to show stream flow as a function of time. By use of judgment, a hydrologist separates base flow from flood flow for an upstream and downstream point. The flood flow between the two points is computed by subtracting the flood flow for the downstream point from that determined for the upstream point.

Texas witness Bell read, from a text on Applied Hydrology, a statement that, Tr. 713:

" * * * the difference between the various routing procedures arises to a considerable extent from minor variations in algebraic manipulation or graphical presentation or from refinements in the basic assumptions. A choice of a procedure depends on many factors, including the nature of available data and personal preference."

The engineers initially prepared and presented to the negotiators six routing studies which appear in S.D. 109 as Table 1 on p. XXVI and Table 2 on p. XXVII. Later the engineers made four additional studies. See table appearing on p. 141 of S.D. 109. The negotiators accepted and acted on the routing study which is entitled "Summary of Operations 1947." This study assumed, S.D. 109, p. XXV, "All conditions as of the present."

The 1947 routing study appears in the record as No. 5, face p. 72, S.D. 109 and as Table 6, Tex. Ex. 2. The importance of this study is such that a copy is attached as Appendix A.

The study is presented as a 43 line, 41 column table containing 1,763 figures, all of which are derived from computations. New Mexico contests the validity of many of the figures. The study does not present any physical state, attribute, or circumstance, e.g., irrigation, domestic application of water, the source of the water diverted, or the consumption of water. The table covers the period 1905-1946 inclusive. The columns begin with "Inflow Guadalupe" as column 1 and end with "Inflow to Red Bluff" as column 41. The intermediate columns cover such items as reservoir storage, release, evaporation, spill, and leakage; irrigation diversions and return flows; artesian flow; depletion by pumps and salt cedars; and flood inflows.

A routing study estimates the availability of water under various assumptions. The water is mathematically passed downstream. Depletions result from such items as reservoir evaporation, channel losses, irrigation diversions and domestic and industrial applications. The study includes both depletions from natural phenomena and from the activities of man but makes no definitive determination between the two. For example, pumping is sometimes included in channel loss. Accretions come from tributary inflow, ground water contributions, and return flow from various applications of water. The routing study can be used to develop an inflow-outflow relationship. The Inflow-Outflow Manual says, S.D. 109, p. 152:

"The inflow is made up of the routed flow past Alamogordo Dam under the 1947 condition and the estimated flood inflow. The outflow consists of the routed flow past the State line under the

1947 condition and includes the estimated flow of the Delaware River."

Administration under the inflow-outflow method requires accurate inflow indices and outflow quantities. Over 50 percent of the inflow index comes from flood inflows. These are shown in the 1947 routing study, columns 13, 25, and 35. The figures used are all computed. The computations in turn depend on other computations of unmeasured values, e.g. evaporation loss, return flows, and channel losses. The methodology for arriving at some of the figures differs from river section to river section. New Mexico witness Erickson testified without contradiction that the engineers who advised the negotiators threw all errors into flood inflows. Tr. 966. In the circumstances, the 1947 routing study does not provide either a reliable inflow index, or a usable method of arriving at that index.

Another problem arises from the use of flood inflows as a substantial part of the inflow index. The effect of the floods varies in accordance with the point of occurrence. Flood inflow above Alamogordo has less effect on the year's state line outflow than does flood inflow below Carlsbad. The first produces water which may be stored in a reservoir and later put to beneficial use. Also that flood inflow is subject to natural channel losses as the water travels a couple of hundred miles downstream to the state line. The second is not capable of storage and suffers from greatly reduced channel loss. The routing study does not weight the impact of a flood inflow on the basis of point of occurrence.

The outflow determination also poses problems. The table on S.D. 109, p. 155 appears to be taken from column 41 of the 1947 routing study. The trouble with the use of the column 41 figures is that the 1947 routing study does not disclose how the figures there appearing were reached. Superficially it would seem that the column 41 result could

be obtained by either adding, subtracting, or ignoring the figures appearing in columns 2 through 40. Witness Bell for Texas testified that column 41 could not be so derived because the 41-column table does not show changes in reservoir storage. Tr. 747. To ascertain these changes, reference must be made to complicated work sheets.

The problems with the 1947 routing study and the Inflow-Outflow Manual were such that efforts to administer the Compact were stymied at the outset.

Another uncertainty should be mentioned. The engineers said, S.D. 109, p. 10, "The 1947 condition is intended to represent the present situation on the river [with stated reservoir capacities]." The doubt is whether the situation is that existing in 1947 or at the beginning of the year 1947. The 1947 routing study is contained in a January, 1948 engineering report and covers the years 1905-1946. It contains no 1947 figures and probably could not because it is unreasonable to believe that those figures could have been available for inclusion in the complicated study presented. After referring to PRJI, Stip. Ex. 11 (b), the engineers said, S.D. 109, p. 34: "No further development has taken place since 1940." On the record presented, some doubt exists whether the reference is to the Upper Reach, the Middle Reach, or both. No evidence was presented on the development, or any change in development, after 1940. In the circumstances, the engineers' intent must have been to relate the 1947 condition to that existing at the beginning, not the end, of 1947. The condition is that of development, not the water supply then occurring. See S.D. 109, p. 113-114.

C — Proposals and Counter-proposals of the Compact Negotiators.

The minutes of the November 8, 1947 meeting of the compact negotiators contain the following statement of the Texas suggestion for a compact basis. S.D. 109, p. 79:

"It is recommended that the amount of water to be requested as a basis of a compact with New Mexico be 292,400 acre-feet per annum, as shown by operation Proposed-A, as indicated in the Pecos River Basin Report of January 1948."

The mentioned report contains the following note, following Table 2, S.D. 109, p. XXVII:

"The values given for condition Proposed-A in table 1 represent the amounts of water that would be received by the State of Texas if that State received all of the benefits resulting from the bypassing of the salt cedar, except those benefits that would automatically be received by the Carlsbad project in the absence of any regulation providing otherwise. The benefits received by the Carlsbad project under this condition as indicated in table 2 would be the elimination of all shortages."

New Mexico countered the Texas suggestion with a proposal, S.D. 109, p. 79, that:

"The suggestions herein contained are based on the premise that allocations of Pecos River water between the States of New Mexico and Texas will be in perpetuity and that in so doing, the Commission must protect all existing beneficial uses insofar as possible on the basis of conditions as we find them today. By today's conditions, New Mexico does not mean the '1947' condition shown in table I of the engineers' report, inasmuch as it is evident that the 1947 water supply will be decreased, other things being equal, by current depletions in the Roswell ground-water basin, the effect of which will not be reflected in the base flow of the river for years to come. Accordingly, it is suggested that the proper basis for

allocating the water is to provide for deliveries by New Mexico based upon the available supply in accordance with present-day conditions as above defined, providing that all future changes in flow not caused by changed beneficial use shall be charged or credited to the two States on an equitable basis to be worked out."

The Engineering Advisory Committee was directed to make further studies. *Id.* at 79-80. It reported, *Id.* at 80:

"From the record of the proceedings of the compact commission at its last session, the committee interpreted the New Mexico proposal to mean that New Mexico would agree to a delivery of a sufficient amount of water to result in a safe yield of 165,000 acre-feet from Red Bluff Reservoir subject, however, to any diminution in that supply which might result from increased depletion by the shallow ground water pumping between Roswell and Artesia in New Mexico, and subject further to augmentation by an equitable apportionment of any water that might be salvaged by the bypassing of the salt cedars at the head of Lake McMillan and/or by other means.

The proposal also was interpreted to mean that the deliveries to Texas might be decreased because of additional taking of water by nature, if such taking was not corrected."

The engineers also said, *Id.* at 82:

"The studies indicate it would be entirely impossible for the State of New Mexico under present conditions to deliver to the State of Texas an amount of water sufficient to result in a yield from Red Bluff of 198,700 acre-feet which was essentially the Texas proposal. There is not that

much water in the river under present conditions. That is on account of the changed conditions, because among other things of the area of salt cedars that is taking a large toll of water.

Going to the New Mexico proposal, the committee concluded that if a compact were written around that it would start out by New Mexico supplying Texas sufficient water to provide a safe yield of 165,000 acre-feet under present conditions."

After some discussion, the meeting adjourned and reconvened on November 11. The Texas Commissioner stated, Id. 96:

"The proposal of * * * New Mexico * * * as a basis for a compact is entirely too vague and indefinite for Texas to consider as a compact basis.

Texas cannot agree to protect the junior rights in New Mexico. Texas is not asking for the same protection in Texas.

New Mexico must be responsible for and assume the burden for the taking of underground water that affects the base flow of the stream in question."

New Mexico asked for a recess. The meeting reconvened on November 13. The New Mexico Commissioner stated, Id. at 97:

"I do not believe it will be necessary at this time to go back and answer specifically the comments as made by Texas commissioner because I believe they are all answered and embodied in the current New Mexico proposal. There may be some questions as to how the current proposal might work in actual practice. It seems to me that those are matters which can be worked out as

administrative features of the compact. If the principles set forth are agreeable to both States, those details can be worked out."

The New Mexico proposal contained nine items or principles, of which the following are pertinent, *Id.* at 97:

"New Mexico shall agree not to deplete by man's activities, the flow of the Pecos River at the New Mexico-Texas State line below an amount which would give to Texas the quantity of water equivalent of the 1947 condition as reported by the engineering advisory committee in its report of January 1948 and supplements thereto, adopted November 11, 1948, except as modified by paragraph 3 hereof.

Water salvaged by reducing the present-day consumption of water by nature shall be apportioned 38 percent to Texas and 62 percent to New Mexico, the Texas share to be delivered and measured at the New Mexico-Texas State line."

Texas agreed with the principles except for the apportionment of salvage water. *Id.* at 97-98. The division was changed to 43% for Texas and 57% for New Mexico, *Id.* at 100, and apparently everyone was satisfied. A drafting committee was created. *Id.* at 101-102.

The records of the next meeting are not satisfactory. S.D. 109 at p. 105 shows that the meeting was held on December 3. On the next page the date is given as December 4. The compact purports to be signed on December 3. The Commission records contain minutes dated December 4, see *Stip. Ex. 4(a)*, which do not check with the minutes appearing in S.D. 109. The original minutes were probably edited and those contained in S.D. 109 are the results of editing. The record shows no approval of the minutes, either as originally appearing or as edited. With some trepidation, the Master accepts the minutes as appearing in S.D. 109.

The compact draft was reviewed by Mr. Tipton. In explaining Art. II(g), he said, Id. at 113:

"'1947 condition' relates to a condition on the stream and does not relate to the water supply that occurred in the year 1947 * * * There were certain conditions that existed on the river, such as the diversion requirements of the Carlsbad project, which the engineering advisory committee assumed; the salt cedar consumption; the reservoir capacities that existed in 1947; the operation of the Fort Sumner project up to 6,500 acres; and the operation of all other projects on the stream as they actually existed in 1947. It must be understood that the term '1947 condition' relates to the condition described in the report and does not relate to the water supply that occurred in the year 1947."

With reference to Art. III, the apportionment article, he said, Id. at 115:

"There are three types of water that are apportioned. One is the water which is equivalent to that which was being received by Texas under the '1947 condition.' And on the other side of the picture, by implication, there is apportioned to New Mexico that which she was using under the '1947 condition' [N.B. the word "using" presents problems. The compact refers to depletions, not uses.] There is apportioned salvaged water and there is apportioned unappropriated flood-water.

* * *

The amount that Texas will receive will vary from year to year in accordance with the inflow to the basin. Another series of years with the same length as the 1905 to 1946 period will occur and it would be only happenstance if the average

received by Texas will be 250,900 acre-feet. The amount received depends upon the inflow to the basin. What it means is that of a given inflow Texas will receive each year essentially the same proportion which she received under the '1947 condition.'

* * *

The only way that Texas would receive less water than she would be receiving under the '1947 condition' would be by the action of nature, in other words an increase of nonbeneficial consumption by nature with no salvage. That would be something that would be outside of the ability of the State of New Mexico to take care of."

The Compact was a compromise. New Mexico accepted a limitation on its depletions. Art. III(a). Texas agreed that the phrase "activities of man" did not include, Art. II (e), "the diminution of such [Pecos River] flow by encroachment of salt cedars or other like growth, or by deterioration of the channel of the stream." Salvage water and unappropriated flood waters were divided on a percentage basis. Art. III(c), (d), (e) and (f). A difficulty arises over ground water depletions.

V — GROUND WATER DEPLETION

This brings us to the problem of base flow. That term is used indiscriminately by the engineers who advised the negotiators and by the witnesses who have testified. To the Master base flow means that portion of the flow at any given point which arises from natural contributions of water either from surface run-off or ground water accretions to stream flow.

The ground water contribution to base flow has two sources, artesian and shallow. Because of the permeability of some of the separating strata, water disperses both to and from each source. Water from the shallow strata may

enter the stream and some of the stream flow may enter the shallow source. Pumping complicates the problem. Wells in the shallow reduce the contribution of water from the shallow to the stream and possibly to the artesian source. Wells in the artesian may pull water from the shallow. New Mexico selectively measures the quantity of water pumped. Surface flows are measured at selected points. The movement of water to and from shallow and artesian is not capable of measurement.

The engineers reported that before development the artesian contribution to the stream was 325 cubic feet per second (cfs). By 1925 the flow had been depleted to 90 cfs. The engineers believed that statutory and regulatory controls imposed by New Mexico would probably result in restoration of some of the artesian contribution to stream flow. S.D. 109, pp. 3-4.

Shallow pumping has significantly affected the base flow and, according to estimates, has decreased the base flow about 30 cfs since 1927. Both artesian and shallow pumping are now under the control of the New Mexico state engineer. Quoting the USGS the engineers told the negotiators that, Id. at 4:

"the full effect of the pumping as now controlled will not be felt for many years, and * * * in spite of such control and the probable restoration of some of the flow to the river from the artesian area, there will be an additional depletion of inflow to the river."

The engineers further reported:

1 — The shallow pumping is exceeding the safe yield. Id. at 83.

2 — The shallow pumping depletion has already reached 20,000 acre-feet per year. Id. at 81.

3 — The total area irrigated by the pumped water is 50,000 acres. Id.

4 — If the shallow pumping proceeds at the present rate "ultimately practically all of the accretion to the base flow of the river between Roswell and Artesia will be depleted." Id.

5 — In the future some of the shallow pumping depletion may be curtailed because of (a) economics such as increase in lift and (b) overdraft. Id.

6 — Depletion will be at a slow rate with the ultimate effect in fifty or more years. Id.

Texas argues that New Mexico traded the ground water depletion for water to be salvaged by elimination of the salt cedars. The engineers reported, Id. at 83:

"The amount of water that it appears can be salvaged by bypassing the present growth of salt cedars at the head of Lake McMillan and by bypassing that reservoir will not be much more than enough to compensate for the loss of base inflow to the river which will result from continuing the present shallow ground-water pumping in the Roswell-Artesia area."

Texas places much stress on a letter from the Acting Secretary of the Interior to the Chairman of the Senate Committee on Interior and Insular Affairs which then had under consideration the bill authorizing congressional consent to the Compact. Among other things the letter said, S.D. 109, XIV-XV:

"The compact reflects a compromise on some points of difference. On the one hand, New Mexico has agreed to settlement on the basis of '1947 conditions' although the depletion effects of present groundwater pumping in the Roswell area, because of the slow movement of percolating underground waters, will not be reflected in the stream flow until some future date. This is offset by the agreement of Texas that nonbeneficial con-

sumptive use of water due to non-man-made activities, would not be chargeable against New Mexico in determining her obligation to deliver water at the New Mexico-Texas State line. * * *

The non-man-made depletions, to which reference is made, are primarily uses by native vegetation principally salt cedars. The validity of the compact will not be adversely affected, even though the estimate of the quantity of water it may be possible to salvage by constructing a bypass canal around the salt cedar area at the head of McMillan reservoir may not be fully realized."

The suggestion that New Mexico traded whatever rights it may have had to deplete the base flow for the salvage water hopefully to be secured by elimination or reduction of the salt cedar loss is difficult to reconcile with the compact provisions. Art. III(c) reads:

"The beneficial consumptive use of water salvaged in New Mexico through the construction and operation of a project or projects by the United States or by joint undertakings of Texas and New Mexico, is hereby apportioned forty-three percent (43%) to Texas and fifty-seven percent (57%) to New Mexico."

Art. II (h) reads:

"The term 'water salvaged' means that quantity of water which may be recovered and made available for beneficial use and which quantity of water under the 1947 condition was non-beneficially consumed by natural processes."

The engineers compared salvage water with base flow in total amounts, but the Compact apportions to New Mexico only 57 percent of the salvage water. Art. III (c). In the light of the discrepancy between the engineers' treatment

of salvage water and the Compact's apportionment, the Master puts little weight on Texas' trade-off argument. Likewise, the Master places little weight on the letter of the Acting Secretary of the Interior expressing his view as an outsider, probably most concerned with the Compact's effect on Bureau of Reclamation projects. Of more significance is the fact that the negotiators rejected the engineers' operation study 1947-A, which considered: "All conditions as of present, except base flow fully depleted." S.D. 109, p. 141. The 1947 routing study, Appendix A, did not consider the base flow fully depleted. Instead it was based on present conditions. The question is the depletion of the base flow at the beginning of 1947.

VI — ADMINISTRATION OF THE COMPACT

Art. V (a) creates the "Pecos River Commission" composed of one representative each of the United States, Texas, and New Mexico, with the representative of the United States having no vote. The potential of a one-man veto of any administrative action is built into the Compact. The summary which follows contains those Commission actions which the Master deems significant to the problems under consideration. The sources used are:

- Stip. Ex. 4 (b) — Pecos River Commission minutes.
- Stip. Ex. 2 — Minutes, reports and memoranda of Engineering Advisory Committee to the Pecos River Commission.
- Stip. Ex. 6 — Minutes and reports of the Inflow-Outflow subcommittee of the Engineering Advisory Committee to the Pecos River Commission.

Pagination of these exhibits is incomplete, unreliable, and, at times, non-existent.

[N.B. The Master's February 2, 1979 Report summarizes and quotes excerpts from the minutes of 27 Commission meetings held between December 9-10, 1949 and February 20, 1975. Herein, the Master includes references to those meetings which have some possible pertinence to the ¶ 4 (a) issues.]

Second Meeting, December 9-10, 1949.

Proposed program and budget adopted. The program included:

"Determine more accurately the 1947 Condition as defined in the compact" and "Study and investigate the items recommended in the Inflow-Outflow Manual directed toward a more accurate determination of inflow-outflow relationships." A rule was adopted which provides that "The Commissioners of the signatory States must concur in any action taken by the Commission." Certain standing committees, including an Engineering Advisory Committee and a Legal Committee, were created. Royce J. Tipton was employed as an engineering advisor and made chairman of the Engineering Advisory Committee.

Minutes of a January 16-17, 1951 meeting of the engineers, Stip. Ex. 2, note:

"The fact that the inflow-outflow relationship for the three year period 1946-1948 for the reach of the river, Alamagordo Dam to the New Mexico-Texas state line shown on Plate No. 2, page 154, Senate Document No. 109, falls below the limit of the relationship as defined by previously existing data."

Twenty-second Meeting, July 29, 1957.

Tipton reported that the engineers "could not reach a conclusion [on restudy of the 1947 condition] and needed legal advice. The Legal Committee reported, Stip. Ex. 4 (b), that it

"is of the opinion that the Commission has the authority to correct any mistakes in the inflow-outflow computations and criteria. The Committee observed, however, that the inflow-outflow curves, graphs and plates in Senate Document 109 * * * are more or less sacred, and suggested that the Commission should be slow to make any changes in the curves, graphs and plates, and then only after careful consideration with clear and convincing evidence to support the changes."

The Commission then adopted a recommendation of the engineers that a special subcommittee be created to restudy under 1947 conditions "the Alamogordo-State line reach." The purpose of the restudy was stated to be "to determine whether the relationship depicted by the curves appearing in pages 153 and 154 of Senate Document 109 * * * should be modified."

Twenty-third Meeting, February 14, 1958.

Tipton reported verbally for the engineers. The minutes show:

"Mr. Tipton then discussed the subcommittee's report on reconsideration of the relationship between base flow in the Acme-Artesia section of the river and rainfall, to include the recent years of low rainfall in the study. He stated that three factors which affect base flow in this river section are rain, pumping from the shallow ground water basin, and the growth of salt cedars. He reported that the committee felt that each of the three factors could be evaluated, if the Legal Committee feels this procedure proper, and these data used in evaluation of the 1947 condition restudy."

The minutes show no Legal Committee action on the mentioned subject.

Twenty-sixth Meeting, October 27, 1960.

Prior to this meeting the subcommittee had presented its report to the engineers. That report is Stip. Ex. 8 and is entitled "Report on Review of Basic Data to Engineering Advisory Committee Pecos River Commission," hereafter RBD. RBD is of special importance. See particularly minutes of October 27, 1960, January 31, 1961, November 9, 1962, and January 29, 1970 meetings. It is essentially another river operation study using a different period, revised USGS records, different assumptions, and different hydrologic and mathematic procedures than those used in the 1947 routing study. Attached as Appendix B is a copy of the RBD routing study comparable to the 1947 routing study.

Twenty-eighth Meeting, November 9, 1962.

The Commission directed the engineers to proceed with a draft of a new Inflow-Outflow Manual.

Forty-second Meeting, January 28, 1971.

Mr. John Russell reports for the Legal Committee stating that the members have corresponded, and also met, and came to the conclusion that an agreement on a report could not be made, therefore, no report was submitted.

Texas advisors and New Mexico advisors separately report on their inflow-outflow calculations. New Mexico says it has called meetings which Texas has not attended and that it is up to Texas to call the next meeting. Commission gives no further instructions to the engineers.

Forty-sixth Meeting, February 21, 1974.

Texas and New Mexico engineer advisors submit separate reports.

Forty-seventh Meeting, February 20, 1975.

[N.B. The Texas suit against New Mexico was filed in the United States Supreme Court on June 27, 1974.]

New Mexico Commissioner believed that meaningful work could be done by the engineers. The Texas Commissioner disagreed and said "that attempts had been made for several years to resolve differences in the Engineering Advisory Committee and that it had now become obvious it could not be accomplished, and that the only proper tribunal was a court of proper jurisdiction."

The administrative history indicates that the States harmoniously cooperated in Compact administration from the organization of the Pecos River Commission until some time after 1962. The disagreements then surfaced and became increasingly severe.

VII — PERTINENT COMPACT PROVISIONS

A. Purpose of the Compact.

The major purposes of the Compact, as stated in Art. I, include two pertinent objectives:

- (1) "to provide for the equitable division and apportionment of the use of the waters of the Pecos River," and
- (2) "to make secure and protect present development within the States."

The negotiators knew that the dependable supply was insufficient "adequately to serve present development." S.D. 109, p. 2. The problem was, and is, the equitable apportionment of a deficient supply. Just as the benefits of a more than adequate supply must be shared equitably, so also the burdens of an inadequate supply must be borne equitably.

The Art. I provision for security and protection of development applies to each State, not to New Mexico alone.

Because New Mexico is the upstream state, the apportionment must take the form of some inhibition of actions occurring in New Mexico.

B. Apportionment of Water.

Four articles of the Compact are pertinent to water apportionment.

Art. III(a) provides that with immaterial exceptions:

"New Mexico shall not deplete by man's activities the flow of the Pecos River at the New Mexico-Texas state line below an amount which will give to Texas a quantity of water equivalent to that available to Texas under the 1947 condition."

Art. II(e) says that the term "deplete by man's activities" means "to diminish the stream flow of the Pecos River at any given point as the result of beneficial consumptive uses of water within the Pecos River Basin above such point." The same article says that diminution of flow by encroachment of salt cedars or by deterioration of the channel of the stream is excluded from the term.

Art. II(g) says that the term "1947 condition" means "that situation in the Pecos River Basin as described and defined in the Report of the Engineering Advisory Committee." It also provides that questions of fact arising as to such situation shall be determined with reference to and decisions shall be based on such report.

Art. II(f) defines "Report of the Engineering Advisory Committee" to mean the Committee's January, 1948 report with the basic data, processes, and analyses used in preparing that report, all of which were approved and adopted by the negotiating commissioners at their December 3, 1948 meeting and included within the minutes of that meeting.

The term "1947 condition" is said to be the "situation" as "defined and described" in the engineering reports which

are assimilated into the Compact by reference. Neither party makes any point of the validity of such assimilation. The Master notes the confusion in the record with regard to the minutes of the December 3, 1948 meeting of the negotiators. Because neither State makes any point of that confusion, the Master accepts those minutes as they appear in S.D. 109, p. 105, et seq. The complex, complicated and intricate engineering reports with their appendices and supplements must be searched for a definition and description of the "situation" mentioned in Art. II(g).

C. Provisions for Administration.

(1) Interstate Agency.

Art. V(a) creates "an interstate administrative agency to be known as the 'Pecos River Commission' " with powers listed in Art. V(d). The agency is composed of one representative of each State and of the United States. The representative of the United States "shall not have the right to vote in any of the deliberations of the Commission."

Commission action requires the approval of the representative of each State. There may be no unilateral action by the representative of one State. The Commission was promptly organized after the 1949 consent of the United States to the Compact and acted with apparent harmony and mutual cooperation through 1962. Thereafter, differences arose to prevent action on the points now in controversy. Diplomatic relations were severed in 1974 when Texas presented its complaint in this case to the Supreme Court of the United States.

(2) Use of Engineering Reports.

Art. VI(a) provides:

"The Report of the Engineering Advisory Committee, supplemented by additional data hereafter accumulated, shall be used by the Commission in making administrative determinations."

This provision becomes important in considering the RBD approved by the Commission in 1962 for determination of state line departures during the 1950-1961 period.

The use of supplemental data does not permit any change in the obligation imposed on New Mexico by Art. III(a).

(3) Inflow-Outflow Method.

Art. VI(c) provides:

"Unless and until a more feasible method is devised and adopted by the Commission the inflow-outflow method, as described in the Report of the Engineering Advisory Committee, shall be used [to make specified determinations and measurements]."

The Commission has not adopted any other method.

The engineers said, S.D. 109, p. 149:

"The inflow-outflow method involves the determination of the correlation between an index of the inflow to a basin as measured at certain gaging stations and the outflow from the basin."

The use of this method in the administration of the Compact requires for each year the determination of the relationship of the inflow indices to the state line flow and the comparison of that relationship to an established base. The comparison for each year shows departures, either positive or negative, from the base. The operation of the method requires reliable indices and state line quantities. Successful use of the method demands consistency and uniformity in the procedures applied in arriving at the numbers used in establishing the base and in determining the annual flows. Without such consistency no worthwhile comparison can be made. Much of the difficulty which occurred in the administration of the Compact arose from uncertainty of the procedures employed by the engineering advisors in obtaining and applying the necessary values.

VIII

COMPACT CONSTRUCTION

The Compact is not self executing. It requires continuing administration of an inconstant stream. The hydrology and geology of the Pecos basin is complex and the precipitation falling within the basin has extreme annual variations.

The Compact is neither a law of the Union nor a statute of the United States. See *Hinderlider v. La Plata*, 304 U.S. 92, 109; and *Delaware River Joint Toll Commission v. Colburn*, 310 U.S. 419, 427.

From a practical standpoint, an interstate compact imposes a contractual obligation on each of the compacting states. See *Dyer v. Sims*, 341 U.S. 22, 28. Questions of obligation and breach are for determination by the Supreme Court. *Id.*, and see *Kentucky v. Indiana*, 281 U.S. 163, 176. Neither State may decide these questions unilaterally. See *Hinderlider v. La Plata*, 304 U.S. at 110.

Contemporaneous construction by the agency charged with the responsibility of administration is entitled to great weight unless compelling indications of error are present. *E.I. Du Pont de Nemours & Co. v. Collins*, 432 U.S. 46, 55, and cases there cited. The extension of that rule to this interstate compact is not helpful because there was no contemporaneous construction. Within less than a year after the Compact became effective, the Commission charged by Art. V with the administration of the Compact found itself unable to make the determinations necessary under the Compact provisions. See *Stip. Ex. 4(b)*, Minutes of Meetings of Pecos River Commission dated December 9-10, 1949, and January 16-17, 1950. For at least 12 years, 1950-1961, the States, acting in apparent harmony, were unable to make the stream flow determinations and from them the departures, if any, from Compact requirements. The Compact administrators did not interpret the Compact other than to recognize that something was wrong.

New Mexico relies heavily on *Younger v. Tahoe Regional Planning Agency*, 9 Cir., 516 F.2d 215. In that case the court upheld a regulation adopted by the administrative agency pursuant to a compact mandate. In the case at bar we have failure to act, rather than action.

The positions of the States will be considered in the light of the background which has been presented.

IX – THE MEANING OF “1947 CONDITION”

A. Provisions of Pre-Trial Order.

Par. 4(a) of the pre-trial order says:

“Is the 1947 Condition, as that term is used in the Pecos River Compact, an artificial condition defined by the Engineering Reports contained in S.D. 109, or is it a condition or situation of physical circumstances existing in the river basin in 1947, except for any increases due to development of the Carlsbad Project to 25,055 acres and development of the Fort Sumner Project to 6,500 acres and except for the use of flood water unappropriated in 1947.”

B. Texas Position.

(1) Artificiality of Routing Study.

Texas says that the 1947 condition is artificial. Consideration of this contention leads into a maze of semantics. The 1947 routing study is artificial. That study is not, and does not purport to be, based on any physical condition. It is a conglomeration of computed values arising from the application of many hypotheses, some of which are hidden in obscurity. The engineers unequivocally say that they used assumed figures for the irrigated acreage in the Fort Sumner and Carlsbad projects. See S.D. 109, p. 70.

The artificiality of the routing study does not eliminate from the Compact the phrase “1947 condition” as used in Art. III (a) and defined in Art. II (g). The latter Article

says that the "1947 condition" is the "situation" as "described and defined" in the engineering reports. The effect of the Texas position is to insert "artificial" as a modifier of "situation." With full realization that "the objective meaning of a word cannot be considered, ordinarily, separate and apart from the context of its actual subjective use," *Northern Natural Gas Company v. Grounds*, 10 Cir., 441 F. 2d 704, 712, cert. denied 404 U.S. 951, the Master is convinced that "situation" as used in the Compact refers to tangible reality, not synthetic imagery. The artificiality of the routing study does not change the Compact meaning.

(2) Routing Study Immutable.

Texas contends that the 1947 condition is immutably expressed in the routing study. The Master disagrees. That routing study is no more than a model of how the river would operate under various assumptions. It does not describe or define any situation. The Compact recognizes supplementation "by additional data hereafter accumulated." Art. VI (a). The engineers recognized the need for corrections and refinements. S.D. 109, pp. 150-151. Texas agreed with New Mexico that the RBD be used to determine departures for the 1950-1961 period. A pattern which contains the mistakes and omissions that are found in that routing study is of little if any practical use. The routing study fails to understandably delineate the hydrologic and mathematic procedures used to obtain many of the computed values. Uncertainties as to procedure caused much of the difficulty which the administrators and their engineers had in applying the Compact and the engineering reports.

(3) New Mexico Bound By Routing Study Mistakes.

Texas argues that by its ratification of the Compact New Mexico accepted and agreed to the Appendix A routing study with all of its errors. Again, the Master disagrees.

The Texas argument relates to mistakes of fact and for support relies on the decision in *Rhode Island v. Massa-*

chusetts, 45 U.S. 591, and *Virginia v. Tennessee*, 148 U.S. 503. Each was a boundary case in which, by agreement, commissioners had run a line which had long been accepted. The Court rejected the claim of mistake. In the Rhode Island case the Court, 45 U.S. at 635, said:

"It may be a matter of doubt, whether a mistake of recent occurrence, committed by so high an agency in so responsible a duty, could be corrected by a court of chancery. Except on the clearest proof of the mistake, it is certain there could be no relief. No treaty has been held void, on the ground of misapprehension of the facts, by either or both of the parties."

See also *Virginia v. Tennessee*, 148 U.S. at 527.

It is undisputed that the engineering reports to the negotiators contained mistakes, inconsistencies, and omissions which were promptly recognized by the agency charged with the administration of the Compact. Neither State acquiesced in the errors. Instead the States, acting in apparent cooperation, struggled for at least 12 years to make the Compact workable. They failed, and controversy replaced harmony. Even now, after many years of controversy, the States each say that the Compact contains no vitiating infirmity. See *Hinderlider v. La Plata*, 304 U.S. 92, 108-109. Each State asserts that if the "conceptual" differences over Compact meaning are resolved, the Compact can be made workable.

The most troublesome errors do not arise out of the particular numbers used in the routing study but out of uncertainties and inconsistencies in the procedures used to obtain those numbers. These uncertainties and inconsistencies come to light only after careful analyses of the complex and intricate engineering reports. The engineers recognized the need for further study and continuing refinement. See e.g. S.D. 109, pp. 150-151. The Compact recognizes the pos-

sibility of supplementation "by additional data hereafter accumulated." See Art. VI (a). The Master concludes that neither State is bound by the mistakes, uncertainties, and omissions in the reports made by the engineers to the negotiators.

One other matter should be mentioned in passing. The Compact requires the administrative agency to use the inflow-outflow method in making various determinations unless the agency adopts a different method. Art. VI (c). The agency has adopted no other method. For the method to function, some means or procedure must be available for comparing an annual relationship against a known base. If the comparison shows a negative departure, the problem is whether that departure results from man's activities. If the base contains errors which affect the departure, the question is whether the departure is the result of an error in the base or of man's activities. Although man's activities are not of present concern, the Master believes that acceptance of an error does not convert that error into an activity of man.

C. New Mexico Position.

(1) Compact Protects New Mexico Uses

New Mexico views the Compact as protecting the New Mexico uses existing when the Compact was made. The Master disagrees.

Art. I expresses a general objective to "secure and protect present development." The provision applies to each State. The negotiators knew that the water supply was inadequate "to serve present development." S.D. 109, p. 2. Protection for Texas, the downstream State, can come only from some restriction on New Mexico, the upstream State. The apportionment was made by the Art. IIIa) limitation on depletion by New Mexico.

Use by beneficial consumption does not equate with depletion. If use were to be the criterion, the limitation on

New Mexico could have been expressed in terms of irrigated acreage. It was not. The engineers told the negotiators that use of irrigated acreage might be unfair and pointed out that "[d]epletion at a given point on a stream is not related in direct proportion to the irrigated area above that point." S.D. 109, at XXXIV. Consumption may depend on irrigation and cropping practices. All water diverted is not consumed. Some gets back to the stream as return flow.

Acceptance of the New Mexico position protects New Mexico rights but destroys Texas rights. If all New Mexico uses are protected, all of the inadequate supply of the instant stream in times of drought could be consumed in New Mexico in complete disregard of Texas rights. Texas is entitled to its equitable share. It does not have to bear all the burden, nor is New Mexico entitled to all the benefit.

One ancillary matter must be mentioned. Texas presented much evidence on depletions resulting from the pumping of ground water in New Mexico. The Master deems evidence of depletions after January 1, 1947 to be of no pertinence to the determination of the 1947 condition. This evidence may be pertinent in consideration of whether New Mexico has impermissibly increased stream depletions by the activities of man. The Master is now concerned with determination of the 1947 condition, not with the question of whether man's actions have depleted the stream flow.

During Compact discussions much was said about pumping in New Mexico. Various statements related to the extent of depletion by pumping. See, e.g., S.D. 109, pp. 55, 81-83 and 141. By prohibiting New Mexico from increasing depletions beyond a certain point, Art. III (a) impliedly recognizes the depletions below that point resulting from pumping.

The 1947 routing study has only one column, No. 14, which relates to pumps. Texas says that the reference is to river pumping rather than to subsurface pumping. Tr. 2954-2955. If this is true the Appendix A routing study does not identify any pumping of ground water. That column, which appears in the treatment of the Artesia-McMillan reach, is headed "Depletion by Pumps" and contains the same figure, 8.8 thousand acre-feet for each year of the entire 1905-1946 period. The idea that the same amount of depletion occurred in each of the 42 years is unreasonable. In the reach McMillan to Red Bluff, pumping occurs but is identified in no column. The pumping statistics are hidden in some other columns, probably those identified as spring inflow and channel loss. It is impossible to determine from either routing study the total depletion from pumping at any given time.

(2) Texas May Not Repudiate Review of Basic Data.

New Mexico also asserts that the RBD was adopted by the Pecos River Commission for administrative purposes and that Texas may not unilaterally repudiate the RBD. It is undisputed that the RBD makes changes in the routing study. Compare Appendix A with Appendix B.

As has been noted, the administering commission was unable to determine departures from the material contained in the Compact and in the various engineering reports. After about 12 years of work the engineers produced the RBD. See Stip. Exs. 5 and 8. Appendix B is essentially a new routing study proposed to replace that appearing as Appendix A. In many instances the RBD uses different records, assumptions, and procedures.

The Pecos River Commission accepted and adopted the RBD for the determination of state line departures during the period 1950-1961. See Stip. Ex. 4(b), Minutes of Meetings of Pecos River Commission held on January 3, 1961 and November 9, 1962. The Commission did not

adopt the RBD for the determination of departures after 1961. Instead it directed the engineers to continue with preparation of a revised Inflow-Outflow Manual. Id., and see minutes of many meetings after 1962. The engineers did not complete this task. No good purpose would be served by any attempt to fix the blame for the failure.

Texas says that the RBD is an impermissible change or amendment of the Art. III(a) obligation. The Master does not agree. The RBD recognizes, rather than detracts from, the obligation. It endeavors to supply a workable means of determining whether there has been a departure from the required deliveries to Texas.

New Mexico says that Texas may not unilaterally reject the RBD. See *Hinderlider v. La Plata*, 304 U.S. 92, 110. Again, the Master does not agree. We have not reached the point in the case where the effect of the Texas approval of the RBD for the determination of 1950-1961 departures is significant. The immediate concern is with the New Mexico obligation.

X — CONCLUSIONS OF SPECIAL MASTER ON 1947 CONDITION

(1) The 1947 condition is that situation in the Pecos River Basin which produced in New Mexico the man-made depletions resulting from the stage of development existing at the beginning of the year 1947 and from the augmented Fort Sumner and Carlsbad acreage.

(2) Determination of a change in that situation is to be made by the inflow-outflow method.

(3) Neither the 1947 routing study, nor any other portion of the various engineering reports, appendices, and supplements, supplies adequate information or direction to permit the use of the inflow-outflow method in determination of stream depletion by New Mexico.

XI – OBJECTIONS OF TEXAS TO MASTER'S RULING ON NEW MEXICO OBLIGATION

Texas objects to the Master's conclusion that the 1947 condition "is something other than the condition defined by the Report of the Engineering Advisory Committee contained in S.D. 109." The definition is said to be contained in the Appendix A 1947 routing study. That study is no more than a compilation of numbers which are derived from computations based on assumptions and which purport to show quantities appearing at various points and times. It does not describe or define anything having actual existence at any time. The Master believes that the word "situation" as used in Art. II(g) refers to reality, not to a contrived barrage of numbers. The failure of the routing study as a definition or description is emphasized by the 30 years of controversy which have produced no more than this litigation.

Texas specifically asks that the Master's definition of the 1947 condition be amplified by the addition to the definition of the phrase underlined below:

"The 1947 Condition is that situation in the Pecos River Basin which produced in New Mexico the man-made depletions resulting from the stage of development existing at the beginning of the year 1947 and from the augmented Fort Sumner and Carlsbad acreage, *with the groundwater contribution to the Pecos River depleted to the extent existing at the beginning of 1947.*"

The Compact says nothing about contributions to the stream from any source. It prohibits increased depletions but does not require contributions. The determining factor is the quantity of the flow at the state line. The source of the flow is immaterial.

Other objections and contentions of Texas have been noted but merit no discussion beyond that contained in the

Master's February 2 Report. The Master overrules all Texas objections to his rulings on the ¶ 4(a) issue.

XII – OBJECTIONS OF NEW MEXICO TO MASTER'S RULING ON THE NEW MEXICO OBLIGATION

New Mexico contends that the 1947 condition stage of development is that existing at the end of 1947, not the beginning of 1947, as held by the Master. By way of support it offered the testimony of witness Erickson in question and answer form. See Tr. 3008-3014. The Master rejected the offer. Acceptance of the offered testimony would not change the Master's conclusion. The engineers presented to the negotiators ten routing studies which are reproduced in S.D. 109 opposite face pp. 72 and 144. Each of those studies ends with the year 1946. The negotiators accepted the study entitled "Summary of Operations 1947." That study ends with 1946. Loose references cannot take the place of the studies. The Master finds nothing in the record which justifies any date other than the beginning of the year 1947.

New Mexico construes the Master's definition as entitling it "to continue the diversions and uses and the depletions associated with the diversions and uses being made with the stage of development and the works existing under the 1947 condition." N.Mex. Objections, p. 4. Diversions, uses, and depletions are three different things. A diversion is the taking of water from a source. A use is the application of the water for a particular purpose. A depletion is the withdrawal of water at a faster rate than it is being replenished. See Clark, *Waters and Water Rights*, Vol. 7, pp. 283, 285, and 321. The Art. III(a) obligation on New Mexico is "shall not deplete." The New Mexico diversions and uses, taken as a whole, may not deplete the state line flow below what it was at the beginning of 1947. The Master must take the Compact as written, ratified by the States, and consented to by Congress.

New Mexico objects to the Master's conclusion that the actions of the Commission "between 1950 and 1961 do not constitute a construction of the Compact within the decision in *E.I. Du Pont de Nemours & Co. v. Collins*, 432 U.S. 46, and similar cases." N.Mex. Objections pp. 8-9. New Mexico argues that inaction is significant under *Federal Trade Commission v. Bunte*, 312 U.S. 349, 352. See Tr. 2961-2962. That case had to do with failure to exercise power. In the instant case action to determine state line flows occurred from 1949 to 1961 but failed to produce a result. Twelve years of action without a result is not contemporaneous construction which aids in the construction of a legal obligation. The most that can be said is that during the period the Commission recognized that something was wrong. After 1961-1962 the Commission continued to struggle with the inflow-outflow method and never reached a conclusion.

Other objections of New Mexico have been noted but justify no discussion beyond that contained in the Master's Report of February 2. The Master overrules all New Mexico objections to his rulings on the ¶ 4(a) issue.

XIII – GROUND WATER

Although hidden in a mass of semantics and mathematics, the heart of this controversy is the pumping of ground water in New Mexico. Texas says that pumping reduces the base flow. New Mexico says that it may continue the pumping practices of 1947.

The Compact says nothing about base flow. The efforts of the Master to obtain agreement on the meaning of that term failed completely. See Tr. 2936-2944 and 2980-2981. The Compact reference is "the flow of the Pecos River at the New Mexico-Texas State line." That flow may come from base flow, flood inflow, or some other sources.

The New Mexico position is no more than a reiteration of the "use" theory which the Master has consistently rejected.

The pumping, whatever it may be and whatever may be its effect, has no bearing on the meaning of the 1947 condition. The engineers hid the extent and effect of pumping in the confusion of numbers appearing in the 1947 routing studies and RBD. Perhaps that is the reason that administration of the Compact has failed. Pumping may be of importance in a determination of whether negative departures from the required state line flows result from man's activities.

The Master notes the contentions of the parties with regard to ground water, and rejects them as having no bearing on the meaning of the term "1947 condition."

XIV - OTHER MATTERS

The Master doubts whether the Compact will ever be workable because it permits a one-state veto of any proposed Commission action. The requirement of the use of the inflow-outflow method presents complications. The application of that method in the operation of the Compact requires the exercise of engineering judgment and skill. As recognized by Texas witness Bell, Tr. 713:

"A choice of procedure depends on many factors, including the nature of available data and personal preference."

The States cannot agree on the basic data. The selection and acceptance of the facts necessary to a determination of the basic data present engineering problems on which many good-faith differences of opinion may arise. Without determination of the basic data no new routing study may be made. When and if a determination of the basic data is made, the use of that data requires assumptions and appli-

cation of diverse hydrologic procedures. Again, good-faith differences may arise. The Compact provides no means of resolving these differences. They present no legal problems and, at the most, require arbitration.

The Master directed the States to give their positions on whether the Compact contained any vitiating infirmity. See *Hinderlider v. La Plata*, 304 U.S. 92, 108.

At the July, 1979 hearing, attorney Caroom, representing Texas, said, Tr. 3247, that the Texas position was that "there is no vitiating infirmity in the Compact." He went on to say, *Id.*, that:

"On the off chance it were totally impossible to develop a routing study or to determine departures or ascertain whether or not they were due to man's activities, if this later in the proceeding turned out to be totally impossible, that would be a vitiating infirmity, but we frankly do not anticipate that to be the case."

New Mexico recognized that the point is arguable, Tr. 3250-3254, and said that it could not take a definite position without consultation with the New Mexico Interstate Streams Commission. Tr. 3254.

The Master also requested that the States give their views on whether Supreme Court review should be sought of the Master's ruling on the ¶ 4 issues. In its Objections and Exceptions to the Master's February 2 Report, p. 8, Texas said:

"We would suggest that the report be written in a form which would not encourage review by the United States Supreme Court at this time."

At the July hearing, Texas opposed such review because of the delay which would ensue. Tr. 3247-3248.

In its objections to the Master's February Report, New Mexico said, p. 20:

“under Supreme Court practice the Master’s findings and conclusions respecting the first segment of the trial would not be reviewable unless the Master were to recommend dismissal or other final disposition of the action.

At the July hearing New Mexico raised questions as to the power of the Master to certify a question to the Supreme Court for review and the desirability of such certification. Tr. 3255. New Mexico says that there is no clear controlling question of law, but rather mixed questions of law and fact.

The Master believes that determination of the obligation of New Mexico under the Compact presents a clear and controlling issue of law. Although Texas relies on the 1947 routing study and New Mexico contests its validity, the existence of the study is admitted as is also its presentation to the Compact negotiators, and their use of it. The existence of the routing study does not raise a question of fact. The validity of a routing study depends on the directions which govern its making. The directions for the 1947 routing study were ostensibly given in the Inflow-Outflow Manual. The Master held, and the States have agreed, that the manual must be modified and corrected. Whatever may be the ultimate decision on the New Mexico Art. III(a) obligation, a new manual and a new routing study will have to be prepared.

The States are not in agreement on the procedure to be followed in the preparation of a new manual and routing study. See the exchange of correspondence which is in the record as Master’s Exhibits 2-9. The complexity of the problem is analyzed by the Master’s technical assistant in an April 23, 1979 letter which has been received in evidence as Master’s Exhibit No. 1. He lists eight items of basic data which will be needed and seven determinations which must be made from the basic data. All of these items

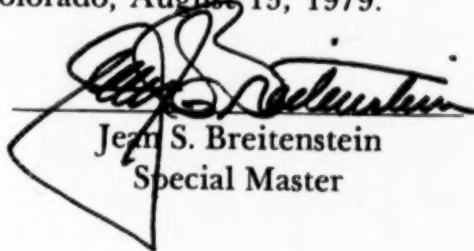
and determinations present technical difficulties. He then gives three possibilities for future proceedings and estimates the required time at about 9 to 18 months and the cost at \$70,000 to \$200,000. The time estimates do not include consideration and resolution of potential controversies.

The intransigent attitude of each State over the many years of this controversy suggests the probability that little agreement may be expected in the preparation of a new manual and routing study. The differences will probably relate to technical hydrologic and engineering matters, susceptible of arbitration but presenting no legal or equitable issues. Because of his lack of training and knowledge in these specialized fields, the Master will have to rely heavily on his technical assistant.

XV — RECOMMENDATION OF SPECIAL MASTER

The Master recommends that the Supreme Court consider and approve his ruling on the "1947 condition" as that term appears in Arts. II(g) and III(a) of the Compact.

DATED at Denver, Colorado, August 13, 1979.



Jean S. Breitenstein
Special Master

C-446 U.S. Courthouse
1929 Stout Street
Denver, Colorado 80294

SUPPLEMENTAL REPORT OF SPECIAL MASTER INTRODUCTION

Texas and New Mexico have each filed objections to the Master's August 13 Report. The Master overrules all objections.

A – OBJECTIONS OF TEXAS

Texas reasserts its position that the 1947 condition is presented in the engineering reports contained in S.D. 109. The Master stands by his conclusion that those reports do not define or describe any physical situation and do not meet the Art. II(g) definition of the 1947 condition. The 30 years of controversy over the operation of the Compact demonstrate the weakness of the Texas position that the 1947 condition is immutably expressed in the 1947 routing study. The Compact commissioners and their engineer advisors tried to apply that study and could not make the Compact work. The logical conclusion from the Texas position is that the Compact is not capable of performance. The Master has attempted to avoid this result by stating a definition of the 1947 condition which comports with the Compact and which may result in its effective administration. Texas concedes that the Inflow-Outflow Manual must be changed. Any change in that Manual requires a change in the routing study.

B – NEW MEXICO OBJECTIONS

New Mexico objects to the Master's conclusion that the actions of the Pecos River Commission do not constitute a construction of the Compact within the meaning of the decision of *E. I. Du Pont de Nemours & Co. v. Collins*, 432 U.S. 46, and similar cases. The Master adheres to his ruling. He finds nothing in *Power Reactor Co. v. Electricians*, 367 U.S. 396, or in *Udall v. Tallman*, 380 U.S. 1, which causes him to change his mind.

New Mexico attacks the Master's conclusion that the 1947 condition is that existing at the beginning, rather

than the end, of 1947. The problem arises from the lack of specificity in the negotiation and writing of the Compact. None of the river routing studies presented to the Compact negotiators covered 1947 data. The use of some 1947 data in the Inflow-Outflow Manual is immaterial. The Manual is not part of the Compact and the States agree that it must be modified and corrected. Further, the Manual is suspect because it was not completed until sometime in January, 1949 and was not submitted to the negotiators until a January 21, 1949 meeting, more than six weeks after the Compact was signed. Tr. pp. 597-599 and 1361. The record contains no minutes of a January 21, 1949 meeting. The Master adheres to his ruling.

The third objection of New Mexico is that the Master in his definition of the 1947 condition did not include the ground water uses developed before 1947. This is a reargument, in new form, of the New Mexico use theory. The Compact does not talk about ground water. It places a limit on New Mexico depletions. New Mexico seeks the right to deplete the ground water to the full extent needed to satisfy all 1947 uses. The Compact negotiators rejected the engineers' routing study 1947-A, which was predicated on "base flow fully depleted," see item 8 in table appearing on p. 95, S.D. 109. Instead, they acted on the 1947 routing study, Appendix A. The Master again rejects the New Mexico use theory.

In its Memorandum supporting its objections, New Mexico discusses the water salvage problem. Water salvage has nothing to do with the 1947 condition.

New Mexico refers to Compact Art. IX which provides:

"In maintaining the flows at the New Mexico-Texas state line required by this Compact, New Mexico shall in all instances apply the principle of prior appropriation within New Mexico."

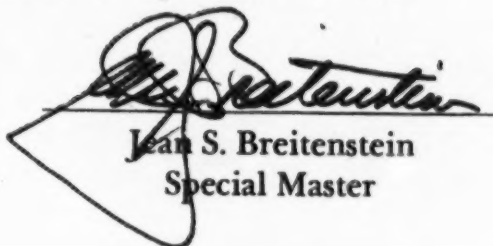
The contention is that the impact of the Master's definition of the 1947 condition and of the quoted Compact provision will reduce the irrigated acreage in New Mexico. The record contains no evidence one way or the other on this point. As pointed out in the Master's Report, the States rejected irrigated acreage as a method of apportionment.

New Mexico calls attention to the first sentence on p. 13, reading: "The gain to the river from additions less depletions is considered as flood inflow." New Mexico would have the word "less" changed to "plus." The sentence relates to the determination of flood inflows by the water budget method and is perhaps too general. In his December, 1978 report to the Master, p. 43, the technical assistant, in describing the problem of determining flood inflows by the water budget method, lists 5 plus items and 3 minus items. The method described by the technical assistant can result in negative flood inflows, which do not occur in nature. Tr. 720. To avoid this result, a negative figure is often treated as a zero, Tr. 722, causing a distortion of the balance. The Master's reference to the water budget method was explanatory only, and its use will depend upon the receipt of further evidence.

New Mexico also questions the sentence on p.15 reading: "The routing study does not weight the impact of a flood inflow on the basis of point of occurrence." The routing study gives some weight to the point of occurrence by its columns 13, 25 and 35 entitled "flood inflow." The routing study was used in the preparation of the second table appearing on p. 155, S.D. 109, and that table in turn was used in the preparation of plate 2 appearing on p. 154, S.D. 109. In that table, and in the plate prepared from it, the points of occurrence of flood inflow are not weighted.

All objections of both Texas and New Mexico are overruled. The Master adheres to the recommendation made in his August 13 Report.

Dated at Denver, Colorado, September 7, 1979.



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SUMMARY OF OPERATIONS

1947

UNIT - 1000 ACRE FEET 1947

Year	ALAMOGORDO RESERVOIR				CHANNEL GAINS AND LOSSES												McMILLAN RESERVOIR						CHANNEL		AVALON RESERVOIR						CHANNEL GAINS AND LOSSES												Inflow to Red Bluff
	Inflow Guad.	Irrig. Release	Evap. Loss	Spills	STORAGE		FT. SUMNER		Vol Past Diversion	Channel Loss	Acme Flow	Artesian Inflow	Flood Inflow Artesia	Depletion by Pumps	Artesia Flow	Depletion by Salt Cedars	Inflow to McMillan	Irrig. Release	Evap. Loss	Leakage from Res.	Spills	STORAGE		Major Johnson Springs	Flood Inflow	Inflow to Avalon	Irrig. Release	Evap. Loss	Seepage from Res.	Spills	Shortages	Seepage from Main Canal	Carltsbad Springs	Flow at Carltsbad	Flood Inflow	Spring Inflow	Return Flow	Potash Plant Use	Irrig. Depletion	Channel Loss			
					Max.	Min.	Div.	Return Flow														Max.	Min.																				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41			
1905	224.0	17.8	19.2	187.0	132.0	132.0	17.7	5.6	192.6	28.4	164.2	61.6	392.7	8.8	609.9	56.7	553.2	0	21.1	197.2	334.9	38.6	21.0	215.2	145.7	695.8	114.6	3.6	57.6	520.0	0	10.1	70.8	600.9	8.0	2.0	53.8	4.3	6.6	48.9	604.9		
1906	223.6	18.8	24.0	180.8	132.0	132.0	18.9	5.9	186.7	28.0	158.7	66.0	8.8	8.8	224.7	52.5	172.2	23.6	19.1	134.4	17.7	38.6	0	132.4	219.2	125.5	3.8	31.5	58.4	0	11.1	47.0	116.5	7.6	2.0	59.0	4.3	6.6	16.3	157.9			
1907	178.5	78.3	21.2	84.6	132.0	100.3	18.3	5.8	150.4	23.5	126.9	64.5	20.6	8.8	203.2	59.8	143.4	5.0	18.5	131.7	0	17.5	0	149.7	58.6	213.3	129.5	4.6	43.0	36.2	0	11.4	56.2	103.8	23.2	2.0	59.9	4.3	6.6	14.7	163.2		
1908	139.2	71.4	23.7	38.5	132.0	87.2	21.4	6.9	95.4	20.1	75.3	61.8	68.0	8.8	196.3	49.9	146.4	5.2	15.3	118.1	0	21.2	0	136.1	51.7	193.0	129.3	4.3	34.0	24.2	0	11.4	48.4	85.0	70.3	2.0	59.7	4.3	6.6	12.9	184.2		
1909	122.1	171.9	18.1	12.1	132.0	48.8	28.9	9.1	164.2	23.0	141.2	55.4	3.1	8.8	191.9	51.2	140.7	55.6	13.6	79.3	0	20.0	0	95.3	26.5	178.4	137.2	3.5	22.4	15.3	0	12.1	35.6	62.9	35.9	2.0	64.4	4.3	6.6	10.0	144.3		
1910	130.8	149.8	6.0	0	132.0	65.1	3.0	28.2	9.1	130.7	20.9	109.8	50.5	31.1	8.8	182.6	48.6	134.0	113.8	1.1	19.7	0	4.1	0	37.7	3.3	154.8	142.4	4.4	28.5	7.3	27.8	10.2	41.7	59.2	56.5	2.0	53.8	4.3	6.6	9.9	150.7	
1911	161.9	141.2	7.2	0	132.0	61.8	3.0	25.6	8.1	128.7	19.4	109.3	49.5	53.5	8.8	203.5	53.8	149.7	63.8	6.9	75.6	0	16.5	0	93.6	32.2	189.6	125.0	2.9	26.1	37.0	1.4	11.0	39.3	87.3	21.3	2.0	58.0	4.3	6.6	13.0	144.7	
1912	141.2	176.6	7.5	0	132.0	62.9	3.0	26.9	8.7	158.3	23.7	134.6	52.9	17.2	8.8	195.9	56.6	139.3	68.0	8.7	66.5	0	13.6	0	84.8	0	152.8	131.6	2.6	16.0	9.4	6.8	10.8	27.2	47.4	69.8	2.0	58.5	4.3	6.6	8.3	153.4	
1913	136.4	169.7	5.7	0	132.0	67.3	3.0	22.0	7.0	158.3	23.7	134.6	52.9	17.2	8.8	195.9	56.6	139.3	68.0	8.7	66.5	0	13.6	0	84.8	0	152.8	131.6	2.6	16.0	9.4	6.8	10.8	27.2	47.4	69.8	2.0	58.5	4.3	6.6	8.3	153.4	
1914	260.5	70.8	15.8	114.5	132.0	132.0	23.3	7.5	169.5	22.6	145.9	57.5	46.5	8.8	242.1	54.6	187.5	30.0	8.4	67.3	0	10.6	0	85.3	99.2	230.5	127.5	3.2	25.0	84.0	9.2	10.4	38.5	132.9	53.6	2.0	55.6	4.3	6.6	18.1	215.1		
1915	253.1	22.3	26.2	246.6	132.0	132.0	22.4	7.0	253.7	31.4	222.3	60.9	147.9	8.8	423.3	67.3	355.0	17.0	16.1	127.3	0	34.4	.1	145.3	24.7	200.0	124.0	3.7	24.7	47.9	.3	10.9	37.9	96.7	95.1	2.0	55.2	4.3	6.6	14.1	227.0		
1916	207.8	28.1	29.2	150.5	132.0	130.3	28.1	9.0	159.5	26.9	132.6	61.8	50.8	8.8	236.4	44.0	192.4	0	17.2	161.5	0	38.0	7.0	179.8	201.3	381.1	120.0	4.7	48.0	203.4	0	10.6	61.2	253.2	143.1	2.0	59.8	4.3	6.6	29.2	431.5		
1917	87.2	179.9	17.1	6.0	132.0	4.2	25.0	8.0	169.0	26.4	142.6	58.2	30.9	8.8	222.9	68.9	154.0	82.4	13.5	82.5	0	22.5	0	100.5	15.4	193.3	143.1	4.8	27.6	22.8	0	12.5	40.8	75.1	14.1	2.0	67.2	4.3	6.6	30.1	259.8		
1918	58.3	22.0	1.7	0	132.0	28.8	27.3	8.7	63.4	19.7	43.7	52.4	62.0	8.8	149.3	37.0	112.3	44.3	5.1	61.9	0	10.5	0	79.9	0	124.2	137.8	2.1	22.9	15.5	54.1	7.3	36.1	59.9	18.3	2.0	67.2	4.3	6.6	11.6	136.9		
1919	465.5	12.0	18.6	331.7	132.0	37.7	12.0	3.9	335.6	34.0	301.6	52.5	25.4	8.8	595.7	63.2	532.5	5.0	26.0	176.0	293.7	38.6	1.2	193.0	195.3	697.0	124.8	4.9	48.4	509.0	0	10.9	61.6	59.9	18.3	2.0	67.2	4.3	6.6	9.0	99.7		
1920	165.7	40.5	28.1	101.4	132.0	109.5	20.6	6.6	128.0	22.7	105.3	55.0	25.5	8.8	177.0	46.9	130.1	50.4	15.4	100.1	0	32.3	0	118.1	42.0	210.5	130.2	4.5	40.0	35.8	0	11.5	53.2	100.4	42.7	2.0	61.2	4.3	6.6	14.5	189.9		
1921	304.7	47.1	24.8	228.5	132.0	101.0	17.0	5.3	264.0	32.2	231.8	55.4	140.6	8.8	419.0	59.5	359.5	25.2	19.8	123.7	181.3	38.6	0	141.7	113.0	461.2	131.4	4.6	44.8	280.4	0	11.5	53.2	349.9	82.6	2.0	61.7	4.3	6.6	34.9	450.5		
1922	83.6	131.0	22.5	9.4	132.0	42.8	25.9	8.2	122.6	20.2	102.4	53.9	43.8	8.8	191.3	62.3	129.0	108.5	2.2	27.8	0	6.9	0	45.8	27.7	182.0	131.9	3.8	27.0	19.6	.3	11.6	40.2	71.4	35.2	2.0	61.9	4.3	6.6	11.1	148.5		
1923	179.6	118.6	8.3	0	132.0	18.1	28.5	9.2	99.2	21.0	78.2	52.5	97.4	8.8	219.3	60.8	158.5	78.8	3.6	52.7	0	23.4	0	70.8	67.2	216.8	128.8	3.7	34.1	50.3	0	11.4	47.3	103.0	34.9	2.0	60.5	4.3	6.6	13.5	180.0		
1924	142.2	103.5	23.7	41.0	132.0	63.6	23.5	7.6	128.6	21.5	107.1	51.7	45.2	8.8	195.2	60.9	134.3	107.6	4.7	42.2	0	16.9	0	60.2	50.3	218.1	142.9	5.1	31.9	38.6	.3	12.5	45.1	95.2	0	2.0	67.0	4.3	6.6	13.9	180.0		
1925	124.0	101.7	9.9	0	132.0	14.3	21.7	6.8	60.8	13.8	73.0	49.3	122.0	8.8	235.7	48.5	187.2	10.0	21.8	145.6	2.3	38.6	.3	163.3	165.1	275.9	135.0	4.4	40.1	98.4	0	11.7	53.3	161.4	0	2.0	63.4	4.3	6.6	20.8	213.6		
1926	190.8	47.2	19.9	84.1	132.0	70.8	17.2	5.3	119.6	21.2	98.4	50.8	80.4	8.8	220.8	44.4	176.4	0	16.4	148.4	0	35.4	4.4	168.4	162.0	328.4	123.2	4.2	54.8	146.2	0	10.7	68.0	224.9	0	2.0	57.9	4.3	6.6	26.0	247.9		
1927	140.7	168.6	17.5	1.1	132.0	54.8	23.6	7.5	173.6	26.6	147.0	52.1	6.0	8.8	196.3	63.2	133.1	91.2	7.3	53.7	0	15.0	0	71.7	66.0	228.9	142.8	4.8	30.3	51.7	0	12.4	43.5	107.6	0	2.0	67.0	4.3	6.6	15.3	150.4		
1928	115.9	69.3	12.7	0	132.0	37.1	19.3	6.2	56.2	14.2	42.0	50.6	127.7	8.8	211.5	55.6	155.9	35.7	9.8	94.0	0	30.0	0	70.0	86.5	212.3	127.0	4.6	38.3	41.7	0	11.0	51.5	104.2	24.5	2.0	59.6	4.3	6.6	15.0	164.4		
1929	157.0	64.3	23.0	7.2	132.0	85.9	24.4	7.8	85.0	17.4	67.6	52.5	14.8	8.8	126.1	36.1	90.0	50.4	4.2	52.0	0	12.4	0	70.0	86.5	212.3	127.0	4.6	38.3	41.7	0	11.0	51.5	104.2	24.5	2.0							

SUMMARY OF 1947 CONDITION ROUTING STUDY
(1946 - 1952 LEAKAGE RELATIONSHIP Mc MILLAN RESERVOIR)

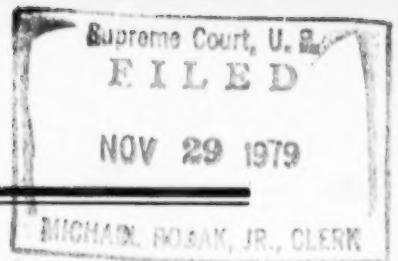
SOURCE;
Stipulated Exhibit 5, p. 18

UNIT - 1000 ACRE FEET

12-60

ALAMOGORDO RESERVOIR						CHANNEL GAINS AND LOSSES												Mc MILLAN RESERVOIR										CHANNEL		AVALON RESERVOIR										CHANNEL GAINS AND LOSSES										Year
Inflow at Guadalupe	Irrigation release	Evap.	Spill	Storage end of year	Routed flow below dam	Ft. Sumner Project diversion	Ft. Sumner Project return Flow	Shortage to Ft. Sumner Project	Routed flow past Project	Channel losses	Artesian inflow	River pump depletion	River pump storages	Flood inflow Guad. Artesia	Routed flow at Artesia	Channel and Delta losses	Flood inflow Artesia to McMillan	Year	Inflow	Irrigation release	Reservoir leakage	Evap.	Spill	Storage end of year	Base Major Johnson Springs	Flood inflow McMillan Dam to Carlsbad	Inflow	Irrigation release	Reservoir leakage	Evap.	Spill	Storage end of year	Shortage to Carlsbad Project	Seepage from Main Canal	Base Flow Carlsbad Spring	Routed flow at Carlsbad	Inflow index at Carlsbad	Depletion Carlsbad to Angeles	Flood inflow Carlsbad to Angeles	Inflow to Red Bluff Res.	Year									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40										
				28.8																			2.7																											
447.0	30.8	12.3	300.5	132.2	331.3	30.8	16.3	0	316.8	57.2	60.7	10.7	0	249.3	558.9	121.8	94.8	1919	531.9	15.0	141.8	19.9	325.8	32.1	17.4	176.1	676.1	124.8	30.0	4.4	516.9	6.0	0	6.6	16.6	572.1	688.3	87.5	90.9	691.7	1919									
164.2	84.2	21.1	78.1	113.0	162.3	38.3	20.3	0	144.3	38.3	51.5	11.4	0	50.4	195.5	78.7	9.2	1920	127.0	39.3	102.2	15.5	0	2.1	17.4	15.6	174.5	130.2	19.0	3.4	24.2	3.7	0	9.0	21.0	73.2	194.4	90.3	8.6	112.7	1920									
282.4	79.6	23.8	159.8	132.2	239.4	30.3	16.0	0	225.1	47.3	43.8	12.9	0	169.2	377.9	85.1	28.6	1921	321.4	18.7	111.0	21.1	168.0	4.7	17.4	54.6	369.9	131.4	23.5	4.9	207.8	6.0	0	9.3	14.5	255.1	377.2	101.0	48.3	324.5	1921									
94.6	192.8	15.6	7.7	10.7	203.5	35.5	18.8	0.7	183.8	39.4	36.6	21.4	0	39.8	199.4	78.2	7.0	1922	128.2	44.8	72.3	14.0	0	1.8	17.4	13.5	148.0	123.6	14.5	3.5	11.9	0.5	8.3	8.6	18.8	53.8	168.8	81.5	29.3	116.6	1922									
159.3	101.4	1.6	0	67.0	101.4	37.1	19.7	0	84.0	33.5	34.0	10.7	0	132.4	205.2	84.8	18.6	1923	140.0	23.8	78.6	10.0	0	29.4	17.4	35.8	155.6	95.5	13.2	1.6	39.8	6.0	33.3	6.7	19.5	79.2	168.0	81.2	31.1	117.9	1923									
141.4	179.5	15.9	0	13.0	179.5	38.4	20.3	0	161.4	40.6	46.3	23.1	1.2	60.4	204.4	77.8	10.3	1924	136.9	56.7	91.7	17.9	0	0	17.4	19.4	185.2	142.6	12.9	3.7	31.6	0.4	0.2	9.9	21.0	75.4	208.1	94.4	2.4	116.1	1924									
138.7	77.3	4.5	0	69.9	77.3	31.7	16.8	1.0	62.4	26.7	36.6	11.4	0	107.0	167.9	59.9	23.7	1925	131.7	22.7	83.1	10.7	0	15.2	17.4	44.5	167.7	101.5	13.5	2.1	45.0	6.0	33.5	7.1	22.4	88.0	182.4	86.7	42.6	138.3	1925									
196.7	53.5	17.2	63.7	132.2	117.2	32.9	17.4	0	101.7	34.5	51.2	10.7	0	76.6	184.3	73.7	47.4	1926	158.0	4.1	129.8	16.9	0	22.4	17.4	89.5	240.8	123.2	27.1	4.2	86.3	6.0	0	8.5	12.3	134.2	248.9	100.9	15.5	163.5	1926									
143.2	211.4	18.2	3.9	41.9	215.3	35.4	15.8	0	198.7	45.4	37.4	23.6	0	22.2	189.3	77.4	16.8	1927	128.7	46.1	88.2	16.8	0	0	17.4	31.3	183.0	142.8	13.7	4.2	26.1	2.2	0	10.1	15.9	65.8	198.5	91.5	0.3	107.3	1927									
120.5	128.9	4.2	0	29.3	128.9	28.9	15.1	0	115.1	36.3	41.0	10.7	0	100.9	210.0	90.8	16.6	1928	135.8	27.6	86.3	12.9	0	9.0	17.4	31.5	162.8	117.8	14.7	3.6	22.9	6.0	9.2	8.3	19.5	65.4	174.9	84.0	50.1	141.0	1928									
157.0	161.6	4.6	0	20.1	161.6	36.7	19.5	0	144.4	39.0	48.7	13.6	0	19.2	159.7	66.9	24.0	1929	116.8	37.4	75.0	11.1	0	2.3	17.4	15.5	175.3	125.8	18.2	3.4	27.9	6.0	2.6	8.7	20.3	75.1	192.2	89.7	12.4	114.9	1929									
160.9	123.5	5.6	0	51.9	123.5	32.3	17.1	0.1	108.3	35.3	39.4	17.2	0	105.3	200.5	66.1	18.9	1930	153.3	27.8	82.0	11.0	12.6	22.2	17.4	36.0	175.8	105.6	15.1	2.6	52.5	6.0	27.4	7.4	21.7	96.7	194.9	90.5	16.5	120.9	1930									
190.5	111.3	14.8	0	116.3	111.3	33.3	17.6	0	95.6	28.5	48.1	13.6	0	85.8	187.4	77.2	12.8	1931	123.0	34.1	95.1	12.9	0	3.1	17.4	24.3	170.9	131.0	17.1	3.0	19.8	6.0	0	9.3	17.4	63.6	185.3	87.6	44.3	142.0	1931									
163.4	97.1	19.4	37.4	125.8	134.5	34.4	18.2	0	118.3	36.4	64.6	10.7	0	177.3	313.1	97.0	32.1	1932	248.2	31.1	106.9	10.9	78.5	23.9	17.4	60.7	294.6	123.2	22.2	3.2	146.0	6.0	0	8.7	23.9	200.8	315.3	102.0	58.3	271.6	1932									
125.6	178.5	17.4	1.2	54.3	179.7	32.8	17.4	0	164.3	42.1	43.0	19.3	0	34.5	180.4	76.0	18.1	1933	122.5	36.4	92.8	15.4	0	1.8	17.4	35.1	181.7	137.2	14.4	3.0	27.1	6.0	0	9.5	23.2	74.2	201.9	92.6	12.1	121.4	1933									
79.2	117.2	6.1	0	10.2	117.2	33.6	17.8	0	101.4	33.9	22.4	20.5	2.4	34.9	104.3	39.7	5.7	1934	70.3	23.9	37.1	9.5	0	1.6	17.4	11.2	89.6	79.4	10.9	2.4	1.2	1.7	61.2	5.4	17.3	34.8	108.8	53.3	7.9	63.4	1934									
152.6	122.1	5.0	0	35.7	122.1	39.2	20.8	0	103.7	32.4	36.0	16.4	0	48.8	139.7	52.5	16.8	1935	104.0	36.0	56.8	9.9	0	2.9	17.4	31.8	142.0	113.1	14.5	3.4	6.7	6.0	15.9	7.9	22.4	51.5	156.7	76.4	40.6	120.9	1935									
115.9	129.7	4.4	0	17.5	129.7	35.2	15.7	0	113.2	36.0	34.2	14.3	0	86.6	183.7	76.0																																		

No. 65, Original



IN THE
Supreme Court of the United States

October Term, 1975

STATE OF TEXAS, *Plaintiff*

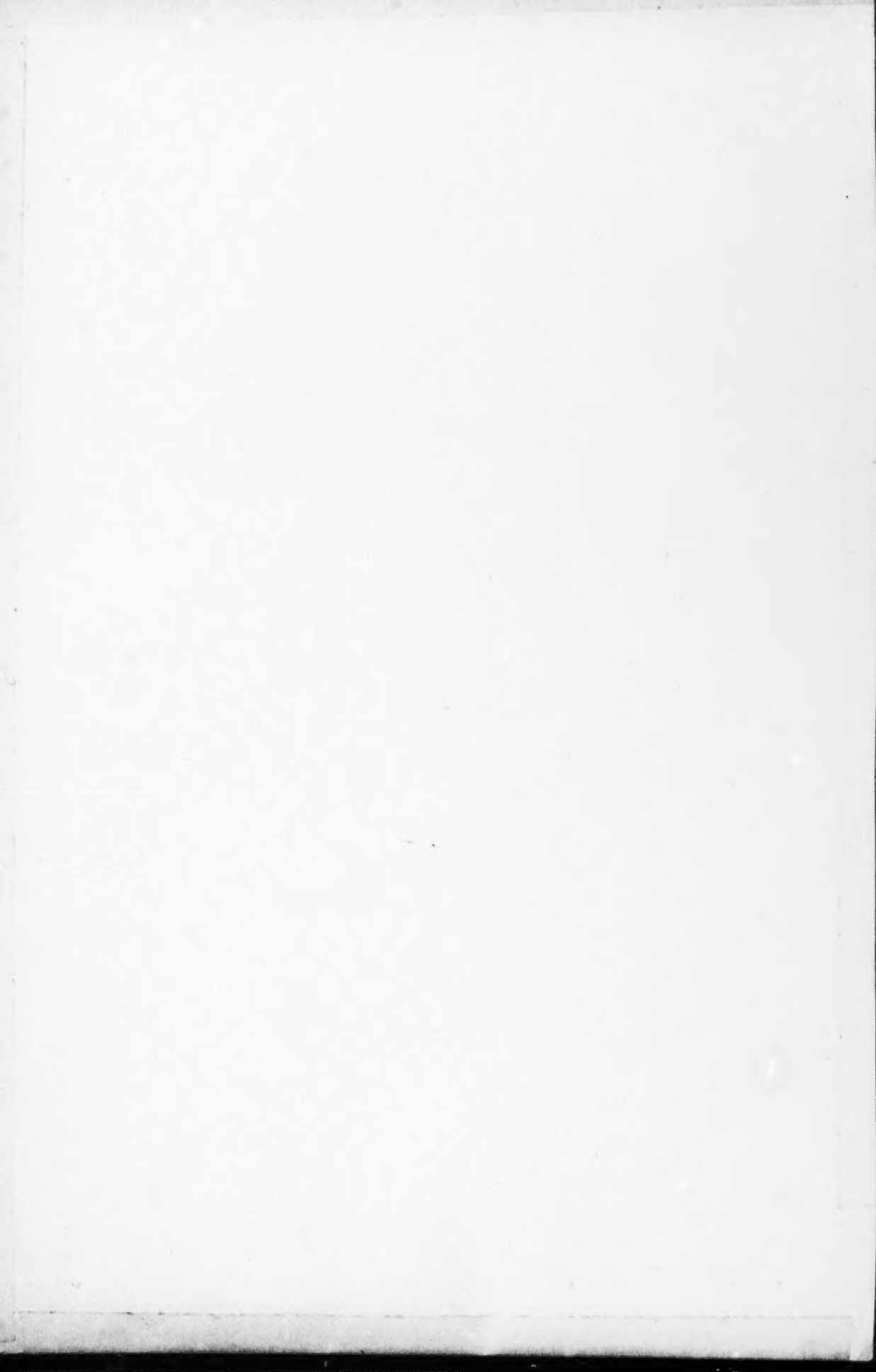
v.

STATE OF NEW MEXICO, *Defendant*
UNITED STATES OF AMERICA, *Intervenor*

**NEW MEXICO'S OBJECTIONS TO THE
REPORT OF THE SPECIAL MASTER
AND BRIEF IN SUPPORT THEREOF**

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November 29, 1979



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IN THE
Supreme Court of the United States

October Term, 1975

No. 65, Original

STATE OF TEXAS, *Plaintiff*

v.

STATE OF NEW MEXICO, *Defendant*
UNITED STATES OF AMERICA, *Intervenor*

**OBJECTIONS TO THE
REPORT OF THE SPECIAL MASTER**

Comes now the State of New Mexico to object to the report of the Special Master accepted for filing on October 15, 1979. New Mexico objects to:

1. The supposition that the "1947 condition" stage of development is that existing at the beginning of the year 1947 instead of that existing at the end of the year 1947;

2. The Master's "conclusion" no. 1, which he appears to have orally construed to mean that the 1947 condition stage of development does not include ground water uses developed before 1947, except to the extent that the effects of those uses had already been reflected in the flow of the Pecos River in 1947; and,

3. The Master's refusal to admit New Mexico's evidence on the negotiators' intent with respect to the meaning of the 1947 condition.

WHEREFORE, the State of New Mexico prays that the Court overrule the Special Master and remand the case with instructions to proceed with trial with the understanding that: 1) the 1947 condition is that situation in the Pecos River Basin which produced in New Mexico the man made depletions resulting from the stage of development existing in 1947 even though the effects of those depletions had not yet been fully reflected in the flow of the river, and 2) that the development that occurred during the year 1947 is part of that condition.

Respectfully submitted,

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IN THE
Supreme Court of the United States

October Term, 1975

No. 65, Original

STATE OF TEXAS, *Plaintiff*

v.

STATE OF NEW MEXICO, *Defendant*
UNITED STATES OF AMERICA, *Intervenor*

**BRIEF IN SUPPORT
OF OBJECTIONS**

JURISDICTION

The original jurisdiction of the Court was invoked under Art. III, Section 2, Clause 2 of the Constitution of the United States and 28 U.S.C. § 1251(a) (1).

PECOS RIVER COMPACT

The grant of consent of Congress to the Pecos River Compact was given in the Act of June 9, 1949, ch. 184, 63 Stat. 159 (1949), and the compact is codified as § 72-15-19 N.M.S.A. 1978 and Tex. Water Code Ann. tit. 3, § 43.010 (Vernon 1972). For the convenience of the Court the compact is set out in full below, as printed in Stipulated Exhibit No. 1 (S. Doc. No. 109,

81st Cong., 1st Sess. (1948) which appears in the record as Stip. Ex. No. 1, hereinafter referred to as S.D. 109).

PECOS RIVER COMPACT

The State of New Mexico and the State of Texas, acting through their Commissioners, John H. Bliss for the State of New Mexico and Charles H. Miller for the State of Texas, after negotiations participated in by Berkeley Johnson, appointed by the President as the representative of the United States of America, have agreed respecting the uses, apportionment and deliveries of the water of the Pecos River as follows:

ARTICLE I

The major purposes of this Compact are to provide for the equitable division and apportionment of the use of the waters of the Pecos River; to promote interstate comity; to remove causes of present and future controversies; to make secure and protect present development within the states; to facilitate the construction of works for, (a) the salvage of water, (b) the more efficient use of water, and (c) the protection of life and property from floods.

ARTICLE II

As used in this Compact:

(a) The term "Pecos River" means the tributary of the Rio Grande which rises in north-central New Mexico and flows in a southerly direction through New Mexico and Texas and joins the Rio Grande near the town of Langtry, Texas, and includes all tributaries of said Pecos River.

(b) The term "Pecos River Basin" means all of the contributing drainage area of the Pecos River and its tributaries above its mouth near Langtry, Texas.

(c) "New Mexico" and "Texas" mean the State of New Mexico and the State of Texas, respectively; "United States" means the United States of America.

(d) The term "Commission" means the agency created by this compact for the administration thereof.

(e) The term "deplete by man's activities" means to diminish the stream flow of the Pecos River at any given point as a result of beneficial consumptive uses of water within the Pecos River Basin above such point. For the purposes of this compact it does not include the diminution of such flow by encroachment of salt cedars or other like growth, or by deterioration of the channel of the stream.

(f) The term "Report of the Engineering Advisory Committee" means that certain report of the Engineering Advisory Committee dated January 1948, and all appendices thereto; including, basic data, processes, and analyses utilized in preparing that report, all of which were reviewed, approved, and adopted by the Commissioners signing this Compact at a meeting held in Santa Fe, New Mexico, on December 3, 1948, and which are included in the Minutes of that meeting.

(g) The term "1947 condition" means that situation in the Pecos River Basin as described and defined in the Report of the Engineering Advisory Committee. In determining any question of fact hereafter arising as to such situation, reference shall be made to, and decisions shall be based on, such report.

(h) The term "water salvaged" means that quantity of water which may be recovered and made available for beneficial use and which quantity of water under the 1947 condition was non-beneficially consumed by natural processes.

(i) The term "unappropriated flood waters" means water originating in the Pecos River Basin above Red Bluff Dam in Texas, the impoundment of which will not deplete the water

usable by the storage and diversion facilities existing in either state under the 1947 condition and which if not impounded will flow past Girvin, Texas.

ARTICLE III

(a) Except as stated in paragraph (f) of this article, New Mexico shall not deplete by man's activities the flow of the Pecos River at the New Mexico-Texas state line below an amount which will give to Texas a quantity of water equivalent to that available to Texas under the 1947 condition.

(b) Except as to the unappropriated flood waters thereof, the apportionment of which is included in and provided for by paragraph (f) of this Article, the beneficial consumptive use of the waters of the Delaware River is hereby apportioned to Texas, and the quantity of such beneficial consumptive use shall be included in determining waters received under the provisions of paragraph (a) of this Article.

(c) The beneficial consumptive use of water salvaged in New Mexico through the construction and operation of a project or projects by the United States or by joint undertakings of Texas and New Mexico, is hereby apportioned forty-three per cent (43%) to Texas and fifty-seven per cent (57%) to New Mexico.

(d) Except as to water salvaged, apportioned in paragraph (c) of this Article, the beneficial consumptive use of water which shall be non-beneficially consumed, and which is recovered, is hereby apportioned to New Mexico but not to have the effect of diminishing the quantity of water available to Texas under the 1947 condition.

(e) Any water salvaged in Texas is hereby apportioned to Texas.

(f) Beneficial consumptive use of unappropriated flood waters is hereby apportioned fifty per cent (50%) to Texas and fifty per cent (50%) to New Mexico.

ARTICLE IV

(a) New Mexico and Texas shall cooperate to support legislation for the authorization and construction of projects to eliminate non-beneficial consumption of water.

(b) New Mexico and Texas shall cooperate with agencies of the United States to devise and effectuate means of alleviating the salinity conditions of the Pecos River.

(c) New Mexico and Texas each may:

- (i) Construct additional reservoir capacity to replace reservoir capacity made unusable by any cause.
- (ii) Construct additional reservoir capacity for utilization of water salvaged and unappropriated flood waters apportioned by this Compact to such state.
- (iii) Construct additional reservoir capacity for the purpose of making more efficient use of water apportioned by this Compact to such state.

(d) Neither New Mexico nor Texas will oppose the construction of any facilities permitted by this Compact, and New Mexico and Texas will cooperate to obtain the construction of facilities that will be of joint benefit to the two states.

(e) The Commission may determine the conditions under which Texas may store water in works constructed in and operated by New Mexico.

(f) No reservoir shall be constructed and operated in New Mexico above Avalon Dam for the sole benefit of Texas unless the Commission shall so determine.

(g) New Mexico and Texas each has the right to construct and operate works for the purpose of preventing flood damage.

(h) All facilities shall be operated in such manner as to carry out the terms of this Compact.

ARTICLE V

(a) There is hereby created an interstate administrative agency to be known as the "Pecos River Commission." The Commission shall be composed of one Commissioner representing each of the states of New Mexico and Texas, designated or appointed in accordance with the laws of each such state, and, if designated by the President, one Commissioner representing the United States. The President is hereby requested to designate such a Commissioner. If so designated, the Commissioner representing the United States shall be the presiding officer of the Commission, but shall not have the right to vote in any of the deliberations of the Commission. All members of the Commission must be present to constitute a quorum.

(b) The salaries and personal expenses of each Commissioner shall be paid by the government which he represents. All other expenses which are incurred by the Commission incident to the administration of this Compact and which are not paid by the United States shall be borne equally by the two states. On or before November 1 of each even numbered year the Commission shall adopt and transmit to the Governors of the two states and to the President a budget covering an estimate of its expenses for the following two years. The payment of the expenses of the Commission and of its employees shall not be subject to the audit and accounting procedures of either of the two states. However, all receipts and disbursements of funds handled by the Commission shall be audited yearly by a qualified independent public accountant and the report of the audit shall be included in, and become a part of, the annual report of the Commission.

(c) The Commission may appoint a secretary who, while so

acting, shall not be an employee of either state. He shall serve for such terms, receive such salary, and perform such duties as the Commission may direct. The Commission may employ such engineering, legal, clerical, and other personnel as in its judgment may be necessary for the performance of its functions under this Compact. In the hiring of employees the Commission shall not be bound by the civil service laws of either state.

(d) The Commission, so far as consistent with this Compact, shall have power to:

1. Adopt rules and regulations;
2. Locate, establish, construct, operate, maintain, and abandon water gaging stations, independently or in cooperation with appropriate governmental agencies;
3. Engage in studies of water supplies of the Pecos River and its tributaries, independently or in cooperation with appropriate governmental agencies;
4. Collect, analyze, correlate, preserve and report on data as to the stream flows, storage, diversions, salvage, and use of the waters of the Pecos River and its tributaries, independently or in cooperation with appropriate governmental agencies;
5. Make findings as to any change in depletion by man's activities in New Mexico, and on the Delaware River in Texas;
6. Make findings as to the deliveries of water at the New Mexico-Texas state line;
7. Make findings as to the quantities of water salvaged and the amount thereof delivered at the New Mexico-Texas state line;
8. Make findings as to quantities of water non-beneficially consumed in New Mexico;

9. Make findings as to quantities of unappropriated flood waters;
 10. Make findings as to the quantities of reservoir losses from reservoirs constructed in New Mexico which may be used for the benefit of both states, and as to the share thereof charged under Article VI hereof to each of the states;
 11. Acquire and hold such personal and real property as may be necessary for the performance of its duties hereunder and to dispose of the same when no longer required;
 12. Perform all functions required of it by this Compact and do all things necessary, proper or convenient in the performance of its duties hereunder, independently or in cooperation with appropriate governmental agencies;
 13. Make and transmit annually to the Governors of the signatory states and to the President of the United States on or before the last day of February of each year, a report covering the activities of the Commission for the preceding year.
- (e) The Commission shall make available to the Governor of each of the signatory states any information within its possession at any time, and shall always provide free access to its records by the Governors of each of the States, or their representatives, or authorized representatives of the United States.
- (f) Findings of fact made by the Commission shall not be conclusive in any court, or before any agency or tribunal, but shall constitute prima facie evidence of the facts found.
- (g) The organization meeting of the Commission shall be held within four months from the effective date of this Compact.

ARTICLE VI

The following principles shall govern in regard to the apportionment made by Article III of this Compact:

(a) The Report of the Engineering Advisory Committee, supplemented by additional data hereafter accumulated, shall be used by the Commission in making administrative determinations.

(b) Unless otherwise determined by the Commission, depletions by man's activities, state-line flows, quantities of water salvaged, and quantities of unappropriated flood waters shall be determined on the basis of three-year periods reckoned in continuing progressive series beginning with the first day of January next succeeding the ratification of this Compact.

(c) Unless and until a more feasible method is devised and adopted by the Commission the inflow-outflow method, as described in the Report of the Engineering Advisory Committee, shall be used to:

- (i) Determine the effect on the state-line flow of any change in depletions by man's activities or otherwise, of the waters of the Pecos River in New Mexico.
- (ii) Measure at or near the Avalon Dam in New Mexico the quantities of waters salvaged.
- (iii) Measure at or near the state line any water released from storage for the benefit of Texas as provided for in subparagraph (d) of this Article.
- (iv) Measure the quantities of unappropriated flood waters apportioned to Texas which have not been stored and regulated by reservoirs in New Mexico.
- (v) Measure any other quantities of water required to be measured under the terms of this Compact which are

susceptible of being measured by the inflow-outflow method.

(d) If unappropriated flood waters apportioned to Texas are stored in facilities constructed in New Mexico, the following principles shall apply:

- (i) In case of spill from a reservoir constructed in and operated by New Mexico, the water stored to the credit will be considered as the first water to spill.
- (ii) In case of spill from a reservoir jointly constructed and operated, the water stored to the credit of either state shall not be affected.
- (iii) Reservoir losses shall be charged to each state in proportion to the quantity of water belonging to that state in storage at the time the losses occur.
- (iv) The water impounded to the credit of Texas shall be released by New Mexico on the demand of Texas.

(e) Water salvaged shall be measured at or near the Avalon Dam in New Mexico and to the quantity thereof shall be added a quantity equal to the quantity of salvaged water depleted by man's activities above Avalon Dam. The quantity of water salvaged that is apportioned to Texas shall be delivered by New Mexico at the New Mexico-Texas state line. The quantity of unappropriated floodwaters impounded under paragraph (d) of this Article, when released shall be delivered by New Mexico at the New Mexico-Texas state line in the quantity released less channel losses. The unappropriated flood-waters apportioned to Texas by this Compact that are not impounded in reservoirs in New Mexico shall be measured and delivered at the New Mexico-Texas state line.

(f) Beneficial use shall be the basis, the measure, and the limit of the right to use water.

ARTICLE VII

In the event of importation of water by man's activities to the Pecos River Basin from any other river basin the state making the importation shall have the exclusive use of such imported water.

ARTICLE VIII

The provisions of this Compact shall not apply to, or interfere with, the right or power of either signatory state to regulate within its boundaries the appropriation, use and control of water, not inconsistent with its obligations under this Compact.

ARTICLE IX

In maintaining the flows at the New Mexico-Texas state line required by this Compact, New Mexico shall in all instances apply the principle of prior appropriation within New Mexico.

ARTICLE X

The failure of either state to use the water, or any part thereof, the use of which is apportioned to it under the terms of this Compact, shall not constitute a relinquishment of the right to such use, nor shall it constitute a forfeiture or abandonment of the right to such use.

ARTICLE XI

Nothing in this Compact shall be construed as:

(a) Affecting the obligations of the United States under the Treaty with the United Mexican States (Treaty Series 994);

(b) Affecting any rights or powers of the United States, its agencies or instrumentalities, in or to the waters of the Pecos

River, or its capacity to acquire rights in and to the use of said waters;

(c) Subjecting any property of the United States, its agencies or instrumentalities, to taxation by any state or subdivision thereof, or creating any obligation on the part of the United States, its agencies or instrumentalities, by reason of the acquisition, construction or operation of any property or works of whatever kind, to make any payment to any state or political subdivision thereof, state agency, municipality or entity whatsoever, in reimbursement for the loss of taxes;

(d) Subjecting any property of the United States, its agencies or instrumentalities, to the laws of any state to an extent other than the extent to which such laws would apply without regard to this Compact.

ARTICLE XII

The consumptive use of water by the United States or any of its agencies, instrumentalities or wards shall be charged as a use by the state in which the use is made; provided, that such consumptive use incident to the diversion, impounding, or conveyance of water in one state for use in the other state shall be charged to such latter state.

ARTICLE XIII

This Compact shall not be construed as establishing any general principle or precedent applicable to other interstate streams.

ARTICLE XIV

This Compact may be terminated at any time by appropriate action of the legislatures of both of the signatory states. In the event of such termination, all rights established under it shall continue unimpaired.

ARTICLE XV

This Compact shall become binding and obligatory when it shall have been ratified by the legislature of each State and approved by the Congress of the United States. Notice of ratification by the legislature of each State shall be given by the Governor of that State to the Governor of the other State and to the President of the United States, and the President is hereby requested to give notice to the Governor of each State of approval by the Congress of the United States.

In Witness Whereof, the Commissioners have executed three counterparts hereof each of which shall be and constitute an original, one of which shall be deposited in the archives of the Department of State of the United States, and one of which shall be forwarded to the Governor of each State.

Done at the City of Santa Fe, State of New Mexico, this 3rd day of December, 1948.

QUESTIONS PRESENTED

The objections of both states will address the following questions:

1. Is the 1947 Condition, as that term is used in the Pecos River Compact, an artificial condition defined by the Engineering Reports contained in S.D. 109, or is it a condition or situation of physical circumstances existing in the river basin in 1947, except for any increases due to development of the Carlsbad Project to 25,055 acres and development of the Fort Sumner Project to 6,500 acres?

- a. Do the actions of the Pecos River Commission between 1949 and 1962 constitute a construction of the compact?

- b. Does the 1947 condition stage of development include development which occurred in the year 1947?
 - c. Does the 1947 condition stage of development include the ultimate depletion of stream flow that would result from ground water development existing in 1947?
 - d. Did the Master err in refusing to admit New Mexico's evidence respecting the intent of the negotiators concerning the meaning of the term "1947 condition"?
2. Is the Pecos River Commission empowered to correct mistakes and omissions in the inflow-outflow computations and criteria used to describe the "1947 condition?"

STATEMENT OF THE CASE

The Complaint of the State of Texas asserts that the State of New Mexico has violated her duties and obligations under the compact. The relief prayed for is a decree of the Court commanding New Mexico to "deliver water in the Pecos River at the Texas-New Mexico state line in accordance with the provisions of the Pecos River Compact" and for such other relief as may be appropriate. New Mexico's Answer denies that she has violated her duties and obligations under the compact and asserts that she has delivered water in accordance with its provisions.

By Pre-Trial Order dated October 31, 1977, the Court's Special Master divided trial of the case into two parts in order to accommodate the way in which the compact was designed to operate. Pursuant to the apportionment provision of the compact, New Mexico is obliged not to deplete by man's

activities the flow of the Pecos River at the state line below an amount equivalent to that available to Texas under the "1947 condition;" New Mexico's obligation does not extend to depletions caused by natural phenomena such as channel deterioration, consumption by phreatophytes, or seismic disturbance. Administratively, however, the sum of increased depletions including those caused by both man and nature must be determined initially. Once this gross indicated departure from New Mexico's delivery obligation is determined, the compact requires a commission finding of how much of the departure was caused by man's activities undertaken after 1947.

Trial was divided accordingly. During the first phase of trial, evidence was taken respecting the meaning of Article III (a) of the compact so that gross indicated departures might be determined. The second phase of trial, which has yet to be conducted, will be devoted to the determination of which indicated departures, if any, were caused by man's activities.

Essentially three issues were to be determined during the first phase of trial: (1) whether the description of the "1947 condition" contained in certain engineering reports is subject to correction in order to better ascertain New Mexico's obligation; (2) if the reports were subject to correction, whether they were inaccurate in a number of specific ways; and, (3) whether an administrative tool called the Inflow-Outflow Manual needed to be modified or corrected to account for deliveries. The Master's Report of September 7, 1979, represents his findings with respect to the first and third issue, the first being an issue of pivotal importance in determining gross departures. The legal side of the issue related to the power of the Pecos River Commission to make the corrections necessary to accurately describe the 1947 condition.

A fourth issue — perhaps the most significant issue in the case — was ambiguously decided by the Special Master, *i.e.*,

whether New Mexico relinquished her depletions by ground water uses already established but not yet manifested in the flow of the Pecos River. The Master characterized the issue as obscure — “hidden in a mass of semantics and mathematics” (Report of Special Master on Obligation of New Mexico and Texas Under the Pecos River Compact, Sept. 7, 1979, p. 44). In response to both parties’ contentions in this regard, the Master “reject[ed] them as having no bearing on the meaning of the term ‘1947 condition.’ ” (*Id.* at 50). This issue will be addressed in detail hereinafter.

The case is inordinately complicated. Most of the initial compact-related documents appear in S.D. 109, including the Report of the Engineering Advisory Committee, the Supplement to the Report January 1948, and the Manual of Inflow-Outflow Methods, which contain the data and engineering procedures basic to the compact’s contemplated administration. It has been clear to both states from the earliest days of administration, however, that many of the factual assumptions and engineering determinations in the original engineering reports were erroneous or incomplete, resulting in the Pecos River Commission’s inability to administer the compact.

By the Compact’s terms the commission was empowered to continually acquire new data to supplement the original studies. The initial efforts at administration revealed numerous errors in the Manual of Inflow-Outflow Methods, the basic administrative tool, and the engineer advisors to the commission promptly set out to make the manual workable. Instead of developing efficacious administrative procedures, however, the cooperative work of the states’ representatives produced a growing awareness that the basic engineering studies originally thought to have accurately depicted the states’ agreement on apportionment, were in error — often grossly so. Accordingly, the compact commission created a special subcommittee of engineers to restudy the basic data and procedures.

The report of the Engineering Advisory Committee and the special inflow-outflow subcommittee, entitled the Review of Basic Data, was formally adopted by the Pecos River Commission on January 31, 1961. In the belief that the original data was sufficiently corrected to facilitate commission findings respecting New Mexico's delivery obligation, the commission on November 9, 1962 made formal findings for the period 1950 through 1961. It was determined that there had been an accumulated gross departure of 5,300 acre-feet, but no determination was made respecting whether the departure had been caused by man's activities or by nature.

The compact commission again assigned the inflow-outflow subcommittee the duty of completing the review of basic data and the procedures outlined in the inflow-outflow manual, but cooperation became progressively more difficult between 1963 and 1969. Finally, in 1970, the Texas compact commissioner "repudiated" the work of the Pecos River Commission and urged that delivery computations be redone on the basis of the original, discredited data and procedures.

In his Report of September 7, 1979 the Master found that:

(n)either the 1947 routing study, nor any other portion of the various engineering reports, appendices, and supplements, supplies adequate information or direction to permit the use of the inflow-outflow method in [the] determination of stream depletion by New Mexico. (Report, Sept. 7, 1979, p. 41).

The dispute between the states centers around the selection of basic data and engineering techniques requisite to an accurate and usable depiction of the agreement embodied in the apportionment provisions of the compact.

GENERAL STATEMENT OF FACTS

In his report the Master provides the Court with an abbreviated explanation of the nature of the Pecos River Compact, its negotiation, and its administrative history. A complete explanation of the relevant factual history would comprise volumes. The essential history follows.

Hydrologically, the Pecos River is one of the most complicated rivers in the United States.

The April 2, 1942, letter transmitting the report, "Pecos River Joint Investigation — Part X" to Dr. B. M. Woods, Chairman, Water Resources Committee, of the National Resources Planning Board, signed by Royce J. Tipton, *et al.*, (Stip. Ex. 17a, Letter of April 2, 1942, p. vi) contains the following paragraph:

For its size, the basin of the Pecos River probably presents a greater aggregation of problems associated with land and water use than any other irrigated basin in the Western United States. This involves both quantity and quality of water supplies, the problem of salinity being particularly acute; erosion and silting of reservoirs and channels; damage from floods; and interstate controversy over the use of the waters. There is an abundance of good lands so that the limit of development is the availability of water of satisfactory quality. *The use of the water of the river has been fully appropriated.* Special characteristics of the stream and its basin are: The large irrigation development based upon ground water supply in the Roswell Artesian area; the extremes of salinity of water of the river at different times and in different portions of the basin; the disappearance of stream flow through deep percolation and its reappearance in the form of springs, recurring many times in the length of the stream; and

the extent to which irrigation must depend upon the conservation of flood flows. (emphasis supplied).¹

In common with most western streams, Pecos River flows vary greatly from day to day, season to season, and year to year. This characteristic is exaggerated for the Pecos River because only a small part of its flow is derived from snowmelt; for the most part, the flow of the Pecos River is dependent on flash floods from thunder storms. Compounding the capricious nature of the river's hydrology for the compact negotiators, was the fact that the water of the river was fully appropriated. The fundamental purpose of the compact was "to make secure and protect existing development within the states. . . ." (Art. I). To accomplish that purpose the compact set up a mechanism whereby both states would undertake to salvage water that was being non-beneficially consumed in order to provide the water necessary to preserve the status quo.

The compact apportions three kinds of water: 1) water which is equivalent to that which was being received by Texas under the 1947 condition and that which New Mexico was using under the 1947 condition, 2) salvaged water, and 3) unappropriated flood water. (S.D. 109, p. 115). To accomplish a division of Pecos River waters the negotiating commissioners selected the "inflow-outflow method" for administration of the compact. [Art. VI(c)]. The inflow-outflow method involves the correlation of an index of the inflow to a basin as

1. The "Pecos River Joint Investigation" was undertaken at the request of both New Mexico and Texas. It was financed by the Public Works Administration, and the work of various state and federal agencies was supervised by the National Resource Planning Board. Royce J. Tipton, who directed the Pecos River Joint Investigation, was appointed as the engineer advisor to the federal representative to the negotiating commission and became the principal protagonist in the conceptualization of the Pecos River Compact.

measured at certain gaging stations and the outflow from the basin (S.D. 109, p. 149). Given the objectives of the negotiating commissioners and the extreme variability of the river flow, it was obvious that a compact provision based on the inflow-outflow method had advantages over a compact that would have required a fixed annual stateline delivery or a fixed annual consumptive use in New Mexico without regard to the annual supply. The engineer advisors specifically recommended against a compact based on irrigated acreage because the effect of irrigation on stateline flow is greatly dependent on natural losses of water from the river channel. The depletion of stream flow upstream by consumptive use of water for irrigation or other purposes is much less than the same depletion near the stateline because the upstream use reduces natural losses from the stream channel. (S.D. 109, p. xxxiv).

The engineer advisors also recommended against a compact in which the delivery obligation would be based on a schedule relating the obligation to the flow at some upstream gage without regard to changes in depletion resulting from natural causes. (S.D. 109, p. 117). This recommendation arose out of experience under the Rio Grande Compact. There, the major floods of 1941 and 1942 resulted in channel deterioration beyond the capability of the upstream state (New Mexico) to repair, with the consequence that increased natural losses made it impossible for the state to meet its delivery obligations based on the flow at the upstream gage, without terminating beneficial consumptive use.

While the inflow-outflow method is a tool carefully selected for the Pecos River Compact administration, its utilization cannot be free of problems. For example, the index inflow chosen for the Alamogordo Dam to stateline reach of the river is the flow at Alamogordo Dam plus all flood inflow between Alamogordo Dam and the stateline. Less than one-half of that

index inflow is subject to direct measurement by the gage at Alamogordo Dam. Determination of the unmeasured flood inflows arising between Alamogordo Dam and the stateline depends on engineering judgments and estimates involving both depletions by man's activities and natural losses.

The principal difficulty with the utilization of the inflow-outflow method for the administration of the Pecos River Compact arises out of the provision of Art. III(a) of the compact, which states that ". . . New Mexico shall not deplete by man's activities the flow of the Pecos River at the New Mexico-Texas stateline below an amount which will give to Texas a quantity of water equivalent to that available to Texas under the 1947 Condition." Under Art. III(a) any depletion of the stateline flow by the encroachment of phreatophytes or as a result of channel deterioration is not chargeable against New Mexico as it is under the terms of the Rio Grande Compact. The provision makes it necessary to distinguish between depletions resulting from man's activities undertaken after 1947 and increases in natural losses after that date.

In the process of selecting principles for a compact, the negotiating commission set out to appraise, among other things, "the probable effect of measures now proposed to remedy . . . existing conditions" (S.D. 109, p. xxv), namely the condition of substantial natural losses (non-beneficial uses). To do so the commission undertook a number of river studies designed to analyze the river under varying conditions of use. One of the conditions studied was the "1947 condition," which, as of January, 1948, represented "present conditions on the river." (S.D. 109, p. xxvi). With respect to each condition, a river routing study was prepared, mathematically routing river flows through various sets of circumstances in order to determine the cumulative effects of those circumstances on river flow at critical points such as the state line. Each condition served

as a principle upon which a compact might have been negotiated, permitting the Engineering Advisory Committee to reason from given conditions to the water yield that might have been expected from each condition. The essential element of the potential bases of the compact was in each instance a set of circumstances or a condition on the river sought to be arithmetically described, the amount "available" to Texas under each condition being no more than the arithmetical result of each attempted description. The agreement ultimately reached by the negotiators was grounded upon one such set of circumstances on the river and not upon the resulting delivery expectations that Texas might have had by routing various amounts of water through that condition.

The condition agreed upon was meant to describe the stage of development and the physical environment as of 1947. Art. III(a) obligated New Mexico not to "deplete by man's activities the flow of the Pecos River at the New Mexico-Texas stateline below an amount which will give to Texas a quantity of water equivalent to that available to Texas under the 1947 condition." The article requires a comparison of stateline Pecos River flows with the flows that would have reached the state-line under the 1947 condition. Departures from the 1947 condition would then be analyzed in a subsequent administrative step to determine what part of any indicated departure resulted from changes in depletion due to man's activities.

In Art. II(g) the compact defines "(t)he term '1947 condition' " as that situation in the Pecos River Basin as described and defined in the Report of the Engineering Advisory Committee. . ." The compact mandates the continual collection of Pecos River data and authorizes the use of "additional data hereafter accumulated. . . to supplement the Report of the Engineering Advisory Committee. . . in making administrative determinations." [Arts. V(d) 4-10 and VI(a)]. The description

is subject to change, as additional data accumulated may require. The situation "1947 condition" may be better described, but it cannot be changed.

Explaining the compact to the negotiating representatives prior to its adoption, engineering advisor Royce Tipton said: ² "The way the Pecos compact is written, the commission has full authority to change the method, or to perfect the technique, so long as what is done by the commission is something that is directed at the determination of the obligation under (III) (a)." (S.D. 109, p. 117). Tipton also explained that "the powers of the commission, broadly, as I understand this, go to the collection and correlation of data and findings of fact with respect to those matters which are important to the administration of the compact." (*Id.* at 123).

The "Summary of Operations - 1947," one of the pre-compact inflow-outflow routing studies, has been taken almost intact into the "Manual of Inflow-Outflow Methods of Measuring Changes in Stream Flow Depletion For Use in the Commencement of Administration of the Pecos River Compact" (the Inflow-Outflow Manual that the Master has determined is ineffective) and rendered there as Plate No. 2. (S.D. 109, p. 154). In offering the manual, its definition of the 1947 condition, and its method of applying subsequent inflow-outflow relationship, the authors stated:

The Pecos River Compact provides that the inflow-outflow method shall be utilized unless otherwise

2. S.D. 109 contains certain essential interpretations of compact provisions, in the form of explanations by Mr. Royce J. Tipton, the Engineering Advisor to the federal representative during compact negotiations. It is clear from the record of the compact negotiation that the compact was approved, article by article, "as explained" by Mr. Tipton. (S.D. 109, p. 111, *et seq.*).

decided by the commission to determine certain items which are important to the administration of the compact. The studies made by the engineering advisory committee of the Pecos River Compact Commission, the results of which are reported in the report of that committee and the supplement thereto, and recorded stream-flows can be used as a basis for the development of the inflow-outflow relationships for certain reach of the river to permit the commencement of the administration of the compact. . . .

In the routing studies made by the engineering advisory committee such items as consumptive use and spring flow were taken as constants. The commission should make studies of such items in order to determine the extent to which they may fluctuate from year to year. . . . In addition to the refinement of such basic data, it may be that refinement of estimating technique can be made of other data such as estimates of flood inflow used in the routing studies which are also used herein to develop inflow-outflow relationships. If this is done, necessarily there must be made a refinement in the inflow-outflow correlation comparable to the refinement in the estimates of the basic data. (S.D. 109, pp. 150-51).

In other words, refinement in the estimating technique in basic data would require a commensurate change in the 1947 condition inflow-outflow correlation to be used to assess deliveries.

Foreseeing possible difficulty in the accurate definition of the 1947 condition necessary to define New Mexico's obligation, the compact authorized the replacement of the inflow-outflow method altogether. Article VI(c) provided that the inflow-outflow method, "as described in the Report of the Engineering Advisory Committee, shall be used. . . unless and until a more feasible method is devised and adopted by the commission."

The compact contemplated the use of three-year moving averages to arrive at gross indicated departures from the 1947 condition. The compact was not to have been self-executing. Mechanically, it depended upon the technical accuracy of the data and estimating procedures upon which New Mexico's annual delivery obligation was to be determined. It also left to the Pecos River Commission, a compact-created, interstate administrative body, the judgment necessary to accept the description of the 1947 condition upon which subsequent compact determinations would be based, to modify the description within the constraints of the inflow-outflow method, or to create a wholly new way of determining departures from the 1947 condition. Pursuant to Art. V(a), only the representatives of the signatory states could vote and both had to concur to effectuate commission action.

At the initial meeting of the commission, each state designated legal and engineering advisors. (Stip. Ex. 4, Minutes, PRC, October 20 and 21, 1949, p. 3).³ A month later, the commission adopted organizational rules which created, *inter alia*, a standing Engineering Advisory Committee to develop the engineering and hydrologic data necessary for the proper

3. Stipulated Exhibit No. 4 contains the minutes of the Pecos River Commission. These minutes, commencing with the October 25, 1956 meeting, are numbered serially in the upper right hand corner of the page. Citations to the minutes commencing with the October 25, 1956 meeting include the date of the meeting and the number appearing at the upper right hand of the page, *i.e.*, October 25, 1956, Minutes, PRC, p. 163. The minutes prior to the October 25, 1956 meeting are either unnumbered or are consecutively numbered within the particular set of minutes. Citations to the minutes prior to the October 25, 1956 minutes include the date of the meeting and the consecutive number of that particular set of minutes, *i.e.*, February 18, 1956, Minutes, PRC, p. 3, where page 3 is the third page of those minutes.

administration of the compact. On December 10, 1949, the commission adopted a program of action, agreeing to proceed with the inflow-outflow computations. The program also called for a more accurate determination of the 1947 condition as defined in the compact. (Stip. Ex. 4, Minutes, PRC, December 9 and 10, 1949, pp. 3 and 4).

Between 1949 and 1952 the engineers attempted without success to make meaningful inflow-outflow computations. In 1952 the Engineering Advisory Committee recommended to the commission that it undertake a review of the inflow-outflow manual and computations resulting from its use. The commission agreed. (Stip. Ex. 4, Minutes, PRC, June 27, 1952, p. 2). The Texas engineering advisor, Mr. Lowry, began that review. By January, 1953, he had submitted to the Engineering Advisory Committee:

... a preliminary report of his studies on the *basis* for the inflow-outflow computations, and suggested certain changes. . . It was agreed that the final result would show *a more accurate measure of the 1947 condition*. . . The final report should be submitted as soon as possible. . . (Stip. Ex. 2, Minutes, EAC, January 21, 1953, p. 2) (emphasis supplied).

Review of the inflow-outflow studies and computations continued through 1956, leading to the conclusion that the methods and technique of the Inflow-Outflow Manual could not be used in compact administration without substantive revision. A report of the Engineering Advisory Committee to the commission made clear that there is error and confusion in the Inflow-Outflow Manual printed in S.D. 109:

The Inflow-Outflow subcommittee has computed the inflow-outflow relationship through 1954 in strict accordance with the letter of the inflow-outflow manual. These efforts have raised some question as to the

accuracy of the language of the manual and as to the manner in which the flood inflows in the Guadalupe-Artesia reach should be determined. The Engineering Advisory Committee has decided that it will be necessary before the computations can be submitted to the Commission, to re-examine the original computations to determine how this item was computed in arriving at the basic compact inflow-outflow relationship. When this has been done, and if the method appears satisfactory, it will be used in recomputing the data. Other refinements of the methods described in the manual will be incorporated in the recomputation. When this work has been done, the Engineering Advisory Committee will submit, for the consideration of the commission, recommendations for revision of the inflow-outflow manual to implement these refinements. (Stip. Ex. 2, Report of Engineering Advisory Committee to the Pecos River Commission, October 25, 1956, p. 3).

The commission accepted the report and formally agreed once again to await the results before making annual determinations. (Stip. Ex. 4, Minutes, PRC, October 25, 1956, p. 167). Neither member state moved for the adoption of the inflow-outflow determination through 1954 based on the unrevised inflow-outflow manual and its Plate No. 2, the original plate, derived from the 1947 condition routing study, depicting the 1947 condition inflow-outflow relationship.

Finally, in April, 1957, the issue of the immutability of the 1947 condition inflow-outflow relationship as depicted in Senate Document 109's Inflow-Outflow Manual, Plate No. 2, formally came to a head. On April 1, the subcommittee presented its report to the Engineering Advisory Committee. (Stip. Ex. 6, Report Inflow-Outflow Subcommittee of the Engineering Advisory Committee to the Pecos River Commission, April 1, 1957). The report included departure determinations for those years. The subcommittee reported that it had

arrived at those departures using techniques different from those in the inflow-outflow manual to determine certain critical values, like flood inflows, necessary to locate the post-1947 inflow point on the existing 1947 condition curve, *i.e.*, Plate No. 2. From that point one would look to the corresponding outflow point on that curve and compare it to contemporaneous outflow data to determine departures for that year. The April 1, 1957 report on departures had altered the manner of entering the 1947 condition curve, but had not changed the curve itself. Nothing had changed the original description of the 1947 condition inflow-outflow relationship.

When the subcommittee offered its report and computations to the Engineering Advisory Committee, a flurry of motions ensued. A Texas representative moved that the report of the Inflow-Outflow Subcommittee, including the computations for the period through 1955, be accepted and turned over to the commission. New Mexico representatives did not second the motion because a number of the problems had not yet been sufficiently studied and resolved. Then a New Mexico representative moved that the Inflow-Outflow Subcommittee report be accepted and transmitted to the Commission, with the understanding that the administrative computations included therein would be subject to revision as new data may become available from continuing consideration and studies such as those listed in the subcommittee report. The Texas representatives declined to second the motion, noting that arithmetical errors should be corrected if discovered at some later date, but that the computations should not be considered to be provisional in other respects.

Finally, the Engineering Advisory Committee agreed to forward the report to the commission "with an explanatory statement of the lack of agreement" as to how and whether it should be adopted. In the process the Texas member of the working

subcommittee explained that the Inflow-Outflow Manual's Plate No. 2 "defined the 1947 condition and was not subject to change on the basis of later information." The New Mexico member replied that "as additional information becomes available it should be utilized, where possible, to better define the 1947 condition." The chairman of the committee explained the two alternatives expressed by the opposing views as a choice between accepting the 1947 condition inflow-outflow curve based on the pre-compact work of the Engineering Advisory Committee depicted in the Inflow-Outflow Manual's Plate No. 2 or developing new computations to describe the base 1947 condition.

Thus the issue that now divides the two states was squarely presented twenty years ago. In response, the chairman of the Engineering Advisory Committee directed the fundamental question to the standing Legal Advisory Committee. Speaking for the legal committee on July 29, 1957, the Texas legal advisor told the Engineering Advisory Committee that the compact permitted alteration of the description of the 1947 condition against which subsequent years would be compared to determine departures. Based on that answer, the chairman discharged the existing inflow-outflow subcommittee, indicated that he would forward that subcommittee's April 1, 1957 report with its departure figures based on an unaltered 1947 condition standard to the commission, and appointed a new subcommittee "to carry out the work of reviewing the engineering data and processes which describe the '1947 condition.' " (Stip. Ex. 2, Minutes, EAC, July 29-30, 1957, pp. 1-4).⁴

In its simultaneous report to the Pecos River Commission, the Engineering Advisory Committee said that it recognized

4. Engineering Advisory Committee Minutes are numbered consecutively from the beginning page of each set of minutes.

that the 1947 condition is inviolate, but that the committee could not agree whether "the curves depicting index inflow vs. outflow as shown on pages 153 and 154, Senate Document 109 . . . were subject to revision." (Stip. Ex. 2, Minutes, Report of EAC to PRC, July 30, 1957, pp. 1-7). Based on the legal advice it had been given, the Engineering Advisory Committee itself recommended, among other things:

3. That a special subcommittee be created to re-study under the 1947 conditions the inflow-outflow relationships for the reach of the river above Alamogordo Dam to the New Mexico-Texas state line. The purpose of the re-study is to determine whether the relationships depicted by the curves appearing on pages 153 and 154 of Senate Document 109. . . should be modified. (Stip. Ex. 4, Minutes, PRC, July 29, 1957, p. 174).

Speaking for the commission's Legal Advisory Committee at the full commission meeting the next day, the Texas legal advisor, who had participated in the compact negotiations, repeated his conclusion that the commission had the power under the compact to alter the engineering description of the 1947 condition, although it couldn't alter the 1947 condition itself. The commission adopted his report and its conclusion. Both member states then adopted the Engineering Advisory Committee's third recommendation, calling for a re-study of the 1947 condition with the declared purpose of possibly changing its description. (*Id.*).

The commission had before it annual computations of departures from the "1947 condition" for the period through 1955 based on the pre-compact description of that condition. Neither state moved the commission to adopt those departures as the beginning place for determining which of them were caused by man's activities. Instead, both states agreed that it was more appropriate and more important to re-examine the description of the base-line "1947 condition."

Pursuant to commission approval and adoption of the Engineering Advisory Committee's July 30, 1957 recommendation that the 1947 condition be re-studied, the Engineering Advisory Committee formed a new "subcommittee on the review of basic data." By November 13, 1957, the subcommittee had started work and had turned, as it often would over the next three years, to the Engineering Advisory Committee for the resolution of particular problems. (Stip. Ex. 2, Minutes, EAC, November 13-14, 1957, p. 1). The particular problems involved possible changes in values to be attributed to component parts of the 1947 condition routing studies.

Many of the problems were resolved at the subcommittee or Engineering Advisory Committee level and the solution embodied in the subcommittee's submittal to the Engineering Advisory Committee on October 24, 1960 and then to the Pecos River Commission itself on October 27, 1960. (Stip. Ex. 2, Minutes, EAC, October 24, 1960, p. 3; Stip. Ex. 4, Minutes, PRC, October 27, 1960, p. 222). The Review of Basic Data's changes in defining the 1947 condition are particularly important for they show the multi-level administrative consensus between the working subcommittee, its engineering committee sponsor, and the Pecos River Commission, and for the implications the consensus of opinion bears on the question of assumptions shared by the two states in authorizing and approving the Review of Basic Data.

As a part of the work undertaken at specific commission direction the subcommittee, in addition to the preparation of the Review of Basic Data, made the routing studies necessary for developing new inflow-outflow correlation curves for the 1947 condition and the computation of departures, if any, of measured stateline flows from the stateline deliveries indicated by those curves. (Stip. Ex. 4, Minutes, PRC, October 27, 1960, p. 223).

Less than three months later, on January 30, 1961, the Engineering Advisory Committee considered the subcommittee's Report on Review of Basic Data, supplemented by much of the information requested of it at the previous October meetings. Item 6 of the report presented a revised version of Senate Document 109's Plate No. 2 that made the changes graphic. The report contained a September 12, 1958 letter from Royce J. Tipton, the author of the pre-compact engineering studies. That letter concludes:

It is obvious that revisions should be made in the basic inflow-outflow relationships presented in the 1948 Inflow-Outflow Manual to reflect where indicated more accurate determinations of 1947 conditions. . . (Stip. Ex. 2, Minutes, EAC, January 30, 1961, p. 1).

The Engineering Advisory Committee adopted the report and approved it for submission to the commission.

On January 31, 1961, the Pecos River Commission followed suit. The resolution adopting the reports which included the determination of departures for the period 1950-1959 described these changes as "amendments, refinements and additions to the basic data of the Commission. . . considered as such in all actions and findings of the Commission, and as representing the present best information on the subjects covered thereby." Having re-evaluated the lower, more extensive reach of the river to provide a new, commission-approved description of the 1947 condition standard against which subsequent years' index inflows and outflows could be assessed to determine departures, the commission adopted formal findings of fact which had been prepared jointly by the states and presented first to the Engineering Advisory Committee for its approval. Having fixed a firm foundation against which to measure subsequent three-year average inflows and outflows,

the task of determining departures became possible. (Stip. Ex. 4, Minutes, PRC, January 31, 1961, p. 250).

In adopting these and other recommendations for the criteria defining the 1947 condition and the routing studies based on them, the commission formally approved necessary revisions and modifications in the inflow-outflow correlation curve for the reach of the river between Alamogordo Dam and the stateline set out in the Manual of Inflow-Outflow Methods in S.D. 109. The State of Texas, through its members on the Review of Basic Data Subcommittee and the Engineering Advisory Committee, as well as through its commissioner, concurred in this action. The inflow-outflow subcommittee report adopted by the commission in its 1961 meeting did not purport to be a final response to the July 30, 1957 commission assignment, but rather constituted a first stage report limited to necessary revisions of data and procedures related to the critical reach of the river between Alamogordo Dam and the stateline.

At its meeting on November 9, 1962, the Pecos River Commission approved, as its Engineering Advisory Committee had the day before, annual and three-year computations for 1950-1961 which showed an aggregate negative departure at the stateline through 1961 of 53,300 acre-feet. (Stip. Ex. 4, Minutes, PRC, November 9, 1962, pp. 257-258). Upon undertaking to determine what part of the indicated gross departure was attributable to man's activities pursuant to Art. III(a), the commission concluded that only 5,300 acre-feet conceivably could have been charged to New Mexico under the compact.

The commission never directed its standing committee or working subcommittee to divide that remaining 5,300 acre-foot departure between those attributable to man's activities and those not. The relatively short reach of the river above Alamogordo Dam had not had the benefit of re-analysis to

re-define its 1947 condition. It was reasonable to believe that the indicated departure would be balanced when the Review of Basic Data was completed. An inflow-outflow method had been used to compute departures for the 1950-1961 period, but no new manual reiterating the technique and methods described in the Review of Basic Data had been approved. Instead, salt cedar eradication and salinity control came increasingly to occupy the attention of the commission and its various committees.

However, by January 1961, the Pecos River Commission and its members' states had arrived at an acceptable definition of the immutable, compact-mandated 1947 condition for the critical reach of the river below Alamogordo Dam. On January 31, 1961, the commission formally adopted the Review of Basic Data and its appendices as "findings of fact of the Commission" pursuant to Art. V(d) 5-8. While the compact and the commission's findings still left the revised and corrected description of the 1947 condition subject to further revision and refinement, the commission had the tools to proceed with compact administration. (Stip. Ex. 4, Minutes, PRC, January 31, 1961; Stip. Ex. 2, Minutes, EAC, January 30, 1961).

There were no meetings of the Engineering Advisory Committee between November, 1962, when the chairman instructed the inflow-outflow subcommittee to complete the formal revised manual (Stip. Ex. 2, Minutes, EAC, November 8, 1962, p. 3), and December 5, 1966, when the Engineering Advisory Committee met to consider the federal salinity project at Malaga Bend and prospects for salvaging Pecos River water. (Stip. Ex. 2, Minutes, EAC, December 5-6, 1966). By March, 1963 the inflow-outflow subcommittee had prepared a draft of an inflow-outflow manual for the Alamogordo Dam-stateline reach, but the draft had never been presented to the Engineering

Advisory Committee. (Stip. Ex. 2, Minutes, EAC, February 20, 1967, p. 2). In the interim, the Pecos River Commission concerned itself with salt cedar eradication and salinity projects; salt cedar promised sufficient salvage of water to cover the depletion in base inflow foreseen in the 1948 studies. (Stip. Ex. 4, Minutes, PRC, December 30, 1963, October 23, 1964, January 22, 1965, January 20, 1966). Neither state demanded delivery computations.

In 1967 the commission returned its attention to the allocation provisions of the compact. In January of that year, the existing inflow-outflow subcommittee indicated to the commission that it would complete the 1957 assignment shortly. (Stip. Ex. 4, Minutes, PRC, January 26, 1967, p. 311). By April, 1967, the subcommittee had submitted to the Engineering Advisory Committee a proposed inflow-outflow manual for the Alamogordo Dam-stateline reach based on the Review of Basic Data's description of the 1947 condition relationship. (Stip. Ex. 4, Minutes, PRC, November 6, 1968, p. 325). By November 1969, New Mexico had transmitted to Texas computations of inflows and outflows between Alamogordo and the stateline for the 1962-1968 period. Texas's acceptance, rejection, or modification of the proposed computations, based on standards already accepted by Texas, was prerequisite to commission action on departures those computations might indicate. Texas never responded.

In an apparent attempt to head off a developing impasse, the Engineering Advisory Committee met in early 1969 to reconstitute itself and its working subcommittee. (Stip. Ex. 2, Minutes, EAC, January 19, 1969, p. 1). In its subsequent report to the commission, the reconstituted Engineering Advisory Committee recommended a detailed schedule for completion of the work already begun pursuant to the commission's 1957 assignment. The proposals would be built on those

computations already accomplished by the Review of Basic Data and accepted by the commission. None would have required more than four years to complete and many of the proposed items would have been finished much sooner. (Stip. Ex. 4, Minutes, PRC, January 23, 1969, p. 342). The commission adopted the recommendations and the proposed timetable.

At a special commission meeting on July 21, 1970, the Texas commissioner, who had been appointed October 30, 1968, read a letter demanding that the commission account for the delivery of Pecos River water on the basis of the pre-compact engineering analysis of the 1947 condition. "Please consider this letter," the Texas commissioner concluded, "as my respectful request that the engineering representatives of both states address themselves to this matter so that at the annual meeting in January the affairs of the Pecos River Compact Commission can be brought forward as contemplated by the compact." (Stip. Ex. 4, Minutes, PRC, July 21, 1970, p. 360). Six months before, on December 5, 1969, the Attorney General of Texas had construed the Pecos River Compact to allow the commission to adopt, as it had done, the Review of Basic Data.

At the annual meeting in January, 1971, the Texas engineering advisors announced that, after 500 man days of work, Texas had determined that using the original engineering data, New Mexico deliveries were "delinquent" in the amount of 1,100,000 acre-feet since the inception of the compact. The New Mexico engineering advisors defended the necessity for and accuracy of the Review of Basic Data's revisions to the 1947 condition and the revised method of comparing annual inflow-outflow computations to it. (Stip. Ex. 4, Minutes, PRC, January 28, 1971, p. 384). At its next annual meeting the commission responded to the dilemma by directing the Engineering

Advisory Committee to make comparative studies between the two views and to complete the original 1957 assignment. (Stip. Ex. 4, Minutes, PRC, February 10, 1972, p. 413). A year later, the commission received a report from the inflow-outflow subcommittee describing the status of the work allotted to the representatives of both states. The commission then reaffirmed its instruction of the previous year to the Engineering Advisory Committee. (Stip. Ex. 4, Minutes, PRC, February 8, 1973, p. 431).

At the commission meeting of February 21, 1974, the Texas commissioner formally announced Texas's "repudiation of the Review of Basic Data and all prior agreements and actions by the Commission," because, in his view, the Review of Basic Data had "operated to deprive Texas of water." (Stip. Ex. 4, Minutes, PRC, February 21, 1974, p. 472).

This suit followed.

SUMMARY OF ARGUMENT

New Mexico objects to two aspects of the Special Master's conclusion respecting the 1947 condition stage of development: 1) his *sua sponte* determination that the compact negotiators "must have intended" that the 1947 condition stage of development ended on January 1, 1947, instead of including development completed during the year 1947 and, 2) his apparent oral construction of his 1947 condition conclusion which would deprive New Mexico of that portion of ground water development existing in 1947, the effects of which had not yet been manifested in the river in the form of base inflow diminution.

With regard to the cutoff date the Master surprised both states. Neither state discerned an issue, and it is apparent that

Texas shared New Mexico's view until the Master independently reached his conclusion. The explanation of the compact to the negotiating commissioners and engineers by Mr. Tipton, the man primarily responsible for its creation, and the history of the compact's post-ratification administration, provide unequivocal support for the fact that the 1947 condition stage of development included 1947. New Mexico's tendered testimony on the subject, which was rejected by the Master, would have left no doubt in anyone's mind, assuming there was reasonable cause for doubt in the first place.

With regard to ground water uses the question is whether New Mexico is entitled to make the base inflow depletions that would result from the 1947 condition stage of development but which were then not manifest in the surface flow of the river. Literally, the Master's conclusion states New Mexico's view of the matter, though the Master has construed his conclusion to mean that the 1947 condition stage of development does not include ground water uses existing in 1947 unless the effects of those uses had reached the river by then.

The Master apparently reached his conclusion on the basis of a sequence of negotiation facts, but it is not possible to reason to such a conclusion on the basis of the sequence of facts he relied upon. When properly understood the apportionment mechanism embodied in Art. III(a) of the compact resolves the question of base inflow diminution through its reliance on water salvage as mandated by Arts. I and IV(a) of the compact. Without reference to the water salvage provisions, the apportionment established in Art. III(a) does not make sense, and the Master's refusal to consider those provisions precludes an understanding of the essence of the compact's apportionment.

While no legislative history exists in either Texas or New Mexico on the intent of the compact negotiators, the record shows that it was contemporaneously understood that the New

Mexico legislature would not have ratified the compact as orally construed by the Master. The Master also erred in rejecting New Mexico's evidence of compact intent on principles of evidence relating to legislative intent, while admitting Texas's evidence of compact intent on principles of contract construction.

ARGUMENT

POINT I: THE 1947 CONDITION STAGE OF DEVELOPMENT INCLUDES DEVELOPMENT MADE DURING 1947.

The Special Master surprised both states by finding that the 1947 condition stage of development is that "existing at the beginning of the year 1947." During oral argument on the parties' objections to the Master's initial report of February 2, 1979, he stated:

I know very well that neither State had anything to say during all these hearings as to the specific date for the 1947 condition. Now, it just seems to the Master that if you are going to try and define the 1947 condition, you have to have a specific beginning place, and since nobody has discussed it, the Master did his best in figuring out what he thought to be a *fair* beginning date. Neither one of you said anything about it during all these hearings we had and I think it is unreasonable to assume that conditions during the whole year of 1947 were the same as they were during the year 1946. (Tr. 2950) (emphasis added).

Notwithstanding the lack of dispute between the parties, the Master found some "doubt . . . whether the situation is that existing in 1947 or at the beginning of the year 1947." (Report, Sept. 7, 1979, p. 16). In concluding that "the engineers' intent

must have been to relate the 1947 condition to that existing at the beginning, not the end, of 1947," the Master-noted that:

The 1947 routing study is contained in a January, 1948, engineering report and covers the years 1905-1946. It contains no 1947 figures and probably could not because it is unreasonable to believe that those figures could have been available for inclusion in the complicated study presented. After referring to PRJI, Stip. Ex. 11(b), the engineers said, S.D. 109, p. 34: 'No further development has taken place since 1940.' On the record presented, some doubt exists whether the reference is to the Upper Reach, the Middle Reach, or both. No evidence was presented on the development, or any change in development, after 1940. (Report, Sept. 7, 1979, p. 16).

The view that the negotiators "must have intended" that 1947 development was not included because the data were derived from the period 1905-1946 is wrong as a matter of fact. Further, the development referred to following the reference to PRJI was the development in the upper reach of the river, and it was on this basis that the annual Guadalupe inflow figures appearing in Column 1 of the routing study given in Appendix A of the Master's September 7, 1979 Report were adjusted to reflect the '47 condition on the basis of 1939 information. The development in the middle reach, on the other hand, was not static. By relating the 1947 condition stage of development to January 1, 1947, instead of considering the situation in the year 1947, New Mexico would lose that substantial part of the ground water usage that was developed during 1947. Cf. Report of the Technical Assistant to the Special Master, December, 1978, Hogan Exhibit 1.

There is *no* evidence in the record to support the Master's supposition. There is considerable evidence, however, to

support the fact that the end of the year 1947 was considered as delimiting the '47 condition stage of development. The record is uncontradicted: 1) Tipton's explanation of the compact included all of 1947; 2) available 1947 data were utilized in S.D. 109; 3) administrative action establishes that the development accomplished in 1947 was part of the condition, 4) the parties did not view the matter as questionable, and 5) New Mexico's tendered testimony, which was rejected, establishes that the 1947 condition included 1947.

Mr. Tipton viewed the '47 condition as a condition existing in 1947 instead of January 1, 1947:

There were certain conditions that existed on the river, such as the diversion requirements of the Carlsbad Project, which the engineering advisory committee assumed; the salt cedar consumption; the reservoir capacities that *existed in 1947*; the operation of the Fort Sumner project up to 6,500 acres; and the operation of all other projects on the stream *as they actually existed in 1947*. It must be understood that the term '1947 condition' relates to the condition described in the report and does not relate to the water supply *that occurred in the year 1947*. (S.D. 109, p. 113) (emphasis added).

Mr. Tipton's understanding was also revealed in his explanation of water salvage:

Mr. Tipton: That is correct, and it is important to keep in mind the term 'quantity of water' because in the future there may be some salvaged. Regardless of the place, any water salvaged up to the *quantity that was being non-beneficially consumed in 1947* is termed 'water salvaged.' (S.D. 109, p. 114) (emphasis added).

Further, the discussion in the Inflow-Outflow Manual relating to the use of Plate No. 2 reflects the same understanding: "The

outflow will consist of the actual recorded outflow at the State line plus any depletions made by Texas of the waters of the Delaware River *after 1947.*" (S.D. 109, p. 155) (emphasis added).

When 1947 data were available they were used in the engineering reports in S.D. 109. For instance, Plates Nos. 5 through 10 of the Inflow-Outflow Manual, which were drawn to describe the 1947 condition, include data for the year 1947.

Contemporaneous administrative action also shows that development during the year 1947 was included. The Review of Basic Data was done under the supervision of Mr. Tipton, then chairman of the Engineering Advisory Committee, and Mr. Erickson, chairman of the special subcommittee. Both men were key figures in the compact negotiations. Neither of them ever expressed any doubt that the year 1947 was included within the ambit of the '47 condition. The Review of Basic Data utilized 1947 stream flow records. The actual situation during 1947 was used in determining the flows of Major Johnson and Carlsbad springs, the irrigation depletion below Carlsbad, and the potash plant uses. At its meeting on January 31, 1961, the commission approved the Review of Basic Data.

At its second meeting on December 9 and 10, 1949, the Pecos River Commission instructed the engineers to determine more accurately the 1947 condition as defined by the compact. In making their determination they were to have obtained aerial photos of the river bottom land and possibly photos of all the irrigated lands below Alamogordo Reservoir. The engineers obtained two sets of photographs covering the Pecos River in New Mexico. One set, made in the fall of 1946, was purchased from Muldrow Aerial Surveys, and the second set was compiled from a flight made in 1950 under contract with the Pecos River Commission. The engineers interpolated

between the 1946 and 1950 photos to determine the 1947 condition. It is clear from the series of maps produced from this effort and the language included in their report to the commission, entitled "Report on Aerial Surveys and Preparation of Maps Delineating Water Consuming Area as of 1947," that the 1947 condition was the condition found in 1947. Had the engineers, including Mr. Tipton, Mr. Lowry, and Mr. Erickson, interpreted the 1947 condition development to have been cut off at January 1, 1947, the Muldrow aerial photos, which were taken in the fall of 1946, could have been used to determine the 1947 condition without interpolation.⁵

Finally, the record shows that Texas has never had any doubt regarding the period of time within the embrace of the 1947 condition. The issue was not encompassed by the Pre-Trial Order. Counsel for Texas repeatedly described the condition with phrases like "the way things were in 1947" and "what was occurring in 1947." See, e.g., Deposition of John Erickson, November 23, 1976, pp. 36, 40-42. When the time element is expressly described, the phrases "in 1947" and "after 1947" are used; never was any significance attributed to January 1, 1947. See, e.g., Tr. 625.

Following the Master's *sua sponte* determination that the 1947 condition stage of development did not include the year 1947, the parties were afforded the opportunity to object. Both parties filed objections with the Master on April 6, 1979, and on April 24, 1979, the Master heard oral argument on the objections. During argument New Mexico tendered the testimony of John Erickson, who was a member of the Engineering

5. The photos and maps are not in evidence because New Mexico did not believe the matter presented an issue. They are referred to, however, in Stip. Ex. No. 4, the Minutes of the 11th meeting of the Pecos River Commission on January 22, 1953, and are a part of the commission records.

Advisory Committee in 1948. Going straight to the suppositional nature of the Master's determination, the following transpired:

Q. (By Mr. Tansey, representing New Mexico)

Mr. Erickson, do you recall any discussion or decision at any time during Compact negotiations that proposed to establish the 1947 condition as of January 1, 1947?

A. No, sir.

Q. Does the fact that routing studies ended with 1946 have any significance other than that was the last information available?

MR. CAROOM: Objection, Your Honor.

SPECIAL MASTER: The objection will be noted and overruled. You may answer.

Q. (By Mr. Tansey) Does it have any significance in relation to the 1947 condition as of a date January 1, 1947?

A. No, sir; that was the last available basic data at that time.

SPECIAL MASTER: Now wait a minute. I don't understand the answer. He said that was the last basic data available at that time. What does he mean by basic data and available?

THE WITNESS: The basic data was available through 1946. The 1947 data had not become available yet.

Q. (By Mr. Tansey) And when you are speaking of basic data, would you just very briefly tell Your Honor what you are referring to?

A. Well, I'm talking about all of the records that are kept in the Basin that were used in the routing studies.

SPECIAL MASTER: Pardon me, I am still in doubt. The witness used the word "available." Available to whom?

THE WITNESS: Available to the Engineering Advisory Committee, to the Compact Commission.

Q. (By Mr. Tansey) Had the data been compiled and put together and published in any form that you could get at it at that time, for 1947?

A. No, sir.

MR. TANSEY: Does that cover what Your Honor wishes to get at?

SPECIAL MASTER: I just wanted a clear understanding of what the answer was, that's all.

Q. (By Mr. Tansey) Mr. Erickson, as a member of that Engineering Committee that was advising the Compact negotiators at that time, if there had been 1947 data and information available, would you have utilized it in your studies?

A. Yes, sir.

SPECIAL MASTER: Now wait a minute. There is nothing to show it was available. The answer to that question would be entirely conjectural and I am not interested in what the answer is. (Tr. 3008-3010).

New Mexico is not certain why the Master was not interested in whether more 1947 data would have been used by the engineer advisors to the compact negotiators had they been available. The answer to the question was not conjectural. The Report of the Engineering Advisory Committee was transmitted to the Pecos River Compact Commission on January 14, 1948. Writing for the Engineering Advisory Committee in January, 1948, Royce Tipton expressed the view of the other

committee members when he stated that "the 1947 condition represents *present* conditions on the river." (S.D. 109, pp. xxvi and 10) (emphasis added). Speaking for New Mexico on March 11, 1948, Commissioner Bliss stated his understanding that the 1947 condition shown in Table 1 of the engineer's report was intended to describe "present-day conditions." (Stip. Ex. 14, Minutes, PRCC, March 10 and 11, 1948, pp. 36-37). Mr. Erickson, who was a member of the engineering advisory committee in 1948, has testified that the 1947 condition was, in underlying principle, that stage of development on the river which included the year 1947. (Tr. 3008-3014). The other engineers on the engineering advisory committee in 1948 — Alfred Tamm, Robert L. Lowry, and E. V. Spence — agreed with Mr. Tipton and Mr. Erickson that the 1947 condition was a term intended to describe the stage of development which included 1947. *See*, "Synopsis," S.D. 109, pp. xxv-xxxiv. The record contradicts the Master's conclusion that "the engineers' intent must have been to relate the 1947 condition to that existing at the beginning, not the end, of 1947."⁶

Disregarding the understanding shared unanimously by the engineers and compact negotiators, the Master relies on the fact that the "Summary of Operations — 1947" ended with 1946. This fact means nothing except that the 1947 data were not available when the "Summary of Operations — 1947" was initially completed. At the second meeting after the adoption of the compact the commission promptly set out to:

Study and investigate the items recommended in the inflow-outflow manual directed toward a more accurate

6. The Pecos River Commission's findings of fact in 1961 and 1962 pursuant to Art. V(d) (5) and (6), as well as the actions of the engineer advisors and commissioners between 1949 and 1962, also constitute a clear administrative construction that the 1947 condition stage of development included 1947.

determination of inflow-outflow relationships. (and to) Determine more accurately the '1947 Condition' as defined in the Compact:

- (a) Obtain aerial photos of river bottom lands.
 - (b) Delineation of areas involving non-beneficial consumption of water.
 - (c) The assembly and analysis of all pertinent hydrologic data available.
- (Stip. Ex. 4, Minutes, PRC, December 9 and 10, 1949, pp. 3, 4).

The purpose of the aerial photography was "to pinpoint more accurately the conditions on the river in 1947." (Tr. 3011). It was understood by the negotiators and the engineers that the Report of the Engineering Advisory Committee was to be supplemented by additional data. *Cf.*, Art. VI(a). When asked whether 1947 data would have been utilized in the 1947 condition routing study had they been available, Mr. Erickson responded affirmatively. The Master stated that he was not interested in the answer to the question because "(t)here is nothing to show it was available." (Tr. 3010).

The understanding of all persons involved was that the 1947 condition included development through 1947. *See*, New Mexico's Objections to the Report of the Special Master on Issues Raised by Paragraphs 4(a), (b), and (c) of the Pre-Trial Order, April 6, 1979, pp. 4-8. In explaining the compact in December 1948, Mr. Tipton stated that the "'1947 condition' relates to a condition on the stream and does not relate to the water supply that occurred in the year 1947." He went on to explain that the condition on the stream was the condition "in 1947." (S.D. 109, p. 113). Despite the fact that the compact was adopted as explained, the Master has described such references as "loose" or somehow wanting in precision. We fail to discern any looseness and instead would charge the engineers

and negotiators with no more precision than is afforded by common usage. Their ordinary expressions comport with the historic facts.

The closest thing to evidence in support of the Master's supposition is the statement of counsel for Texas in objecting to New Mexico's tender of evidence:

MR. CAROOM: Your Honor, we certainly object to reopening the record to receive this evidence. As we stated in our letter, there is abundant evidence in the record. There were two weeks of testimony on the 1947 condition, and much of it, although not directed specifically at the precise date in 1947, is very relevant to the Court's determination and supports it. I can see no reason whatsoever to open the record now to allow this evidence in. (Tr. 3005).

The purpose of that testimony was to establish the meaning of the term "1947 condition" and to establish whether it is the "... situation of physical circumstances existing in the river basin in 1947. . . ." [Pre-Trial Order 4(a) (emphasis added)]. The fact that there were two weeks of testimony on the 1947 condition is dispositive insofar as the cutoff date is concerned. Had the cutoff date been an issue it should have been addressed in that testimony.

While a Master's conclusions of law are entitled to careful consideration, they have no presumptive effect. 5A J. Moore, *Federal Practice*, par. 53.12 (2d ed. 1979). With respect to findings of fact, the applicable federal rule provides that "the court shall accept the master's findings of fact unless clearly erroneous." [Fed. R. Civ. P. 53(e) (2)]. Here, however, the Master's determination respecting the 1947 condition cutoff date is not a finding involving disputed testimony and the weighing of evidence — it is mere supposition of fact. Accordingly, the ordinary presumption in favor of a Master's finding

is not applicable. *See, generally*, 5A J. Moore, *Federal Practice*, par. 53.12[4] (2d ed. 1979). Where a Master's finding is nothing more than an inference or supposition, the reasonableness of which can be as readily determined by the Court as by him, his "finding" carries no presumptive weight. *Kycoga Land Co. v. Kentucky River Coal Corp.*, 110 F.2d 894, 896 (6th Cir. 1940), *cert. denied*, 312 U.S. 688 (1941).

The fact of the matter is that Texas received a windfall in the form of the Master's supposition. Despite Texas's statement that there is ample evidence to support the Master, there is none. In this regard, we invite the Court to carefully scrutinize Texas's reply to this Brief. We doubt that Texas will be able to profitably avail itself of the opportunity to identify the evidence she claims exists. For the five reasons we've discussed, the record clearly establishes that the Special Master was wrong when he took it upon himself to exclude the development that occurred during 1947 from the 1947 condition stage of development. The additional evidence tendered by New Mexico and wrongfully rejected by the Master would have further supported the fact that 1947 development was a part of the 1947 condition.

POINT II: ARTICLE III(a), WHICH APPORTIONS TO TEXAS THE WATER WHICH IS EQUIVALENT TO THAT WHICH WAS BEING RECEIVED BY TEXAS UNDER THE 1947 CONDITION, DOES NOT MAKE NEW MEXICO LIABLE FOR BASE FLOW DEPLETION CAUSED BY GROUND WATER PUMPING.

The Master has pointed out that "(a)lthough hidden in a mass of semantics and mathematics, the heart of this controversy is the pumping of ground water in New Mexico." (Report,

Sept. 7, 1979, p. 44). Part of the problem relates to the way in which the issues were delineated in the Pre-Trial Order of October 31, 1978. There are two issues of controlling importance. One of them is listed as item 4(a) in the Pre-Trial Order, namely, whether the numerical description of the 1947 condition depicted in Plate No. 2 of the initial engineering studies is intrinsically the basis of the compact or whether it is an attempt to describe a real situation. The other is indeed buried in semantic and mathematic sophistry. That question is: Is New Mexico entitled to make the base inflow depletions that would result from the 1947 condition stage of development but which were then not manifest in the surface flow of the river?⁷

Comprehending the issue is difficult. During the final months of compact negotiations the dispute focused upon two hydrologic facts: 1) that because of the delayed effects of ground water pumping already established in 1947 on the regimen of the river, the base inflow to the river would progressively diminish until fully depleted, assuming no other hydrological change, and 2) that phreatophyte encroachment had caused substantial non-beneficial consumption of water. In discussing the problem on November 8, 1948, less than a month prior to reaching agreement, Mr. Tipton reported to the negotiators that it would be physically impossible to provide the anticipated safe yield of 165,000 acre-feet under the 1947 condition because "if nothing were done to bypass the salt cedars . . . and if the present pumping in the Artesia-Roswell area continued at the present rate, the yield . . . would gradually be reduced to 135,000 acre-feet. (S.D. 109, p. 82). The full

7. The "base inflow" is the natural ground water discharge of the artesian and shallow aquifers in the Acme to Artesia reach of the river.

engineering advisory committee reported the problem as follows:

The elimination or the bypassing of the salt cedars at the head of McMillan Reservoir and the abandonment of the use of that reservoir for the regulation of water for the Carlsbad project, under present conditions, will increase the dependable water supply for the basin by an average of 39,000 acre-feet per year. This benefit will be gradually decreased with the increasing effect on the base inflow to the river of the present pumping of the shallow ground water, if that pumping continues at its present rate. It is probable when the full effect of the pumping is felt some 40 or 50 years from the present, the increased depletion will not completely offset the 39,000 acre-feet of mean annual benefit. (S.D. 109, p. xxxiii).

By the time the negotiating commission met in Santa Fe on December 3, 1948, an agreement had been reached and the compact had been drafted. Because of Mr. Tipton's expertise, as well as the fact that he was the principal protagonist in obtaining the agreement, he was "asked to discuss the various articles to bring in the background, to show intent, and to provide a complete explanation of any matters about which there might be some question." (S.D. 109, p. 111). Ultimately, the compact was adopted as explained by Mr. Tipton. (S.D. 109, p. 129). In explaining Art. III(a), Mr. Tipton explained that New Mexico retained the right to continued ground water pumping:

There are three types of water that are apportioned. One is water which is equivalent to that which was being received by Texas under the '1947 condition.' And on the other side of the picture, by implication, there is apportioned to New Mexico that which she

was *using* under the '1947 condition.'⁸ (S.D. 109, p. 115). (emphasis supplied).

In explaining Article II(b) of the compact, Mr. Tipton stated:

So, as used herein, the definition "Pecos River Basin" means all of the contributing drainage area of the Pecos River and its tributaries above its mouth near Langtry, Texas. That means all of the area which contributes surface water to the stream or its tributaries, and all of the area which contributes ground-water accretions to the stream. In other words, the Basin includes all contributing drainage areas, both from surface and ground-water sources. There are not included those closed basin areas which contribute no water to the Pecos River. (S.D. 109, p. 112).

In other words, the ground waters of the Roswell ground water basin are a part of the supply apportioned by the compact.

In explaining Article II(g), Mr. Tipton stated:

I don't believe much explanation is needed of item '(g).' I will give a short one in order that there shall not be confusion. '1947 condition' relates to a condition on the stream and does not relate to the water supply that occurred in the year 1947. There may be some confusion about that. There were certain conditions that existed on the river, such as the diversion requirements of the Carlsbad project, which the engineering advisory committee assumed; the salt cedar consumption; the reservoir capacities that existed in

8. The Master advises the Court that "the word 'using' presents problems. The compact refers to depletions, not uses." (Report, Sept. 7, 1979, p. 21). As we will point out, no problem is presented if the article is fully comprehended.

1947; the operation of the Fort Sumner project up to 6,500 acres; *and the operation of all other projects on the stream as they actually existed in 1947.* It must be understood that the term '1947 condition' relates to the condition described in the report and does not relate to the water supply that occurred in the year 1947. (S.D. 109, p. 113) (emphasis supplied).

According to this explanation the 1947 condition includes the ground water uses established in 1947 or earlier.

In explaining Article III of the compact, Mr. Tipton stated:

Mr. Chairman, this is an exceedingly important article because it is the apportionment article. There are three types of water that are apportioned. One is the water which is equivalent to that which was being received by Texas under the '1947 condition.' And on the other side of the picture, by implication, there is apportioned to New Mexico that which she was *using* under the '1947 condition.' There is apportioned salvaged water and there is apportioned unappropriated floodwater. (S.D. 109, p. 115) (emphasis supplied).

There was apportioned to New Mexico the ground water uses that had been developed in 1947 or earlier even though the depletion associated with those uses had not yet been fully reflected in river flows by the end of 1947.

There is some confusion respecting the Master's treatment of the issue. The Master first reached his conclusion that the 1947 condition was reality, *i.e.*, the contemporaneous conditions on the river, in Report of Special Master on Issues Raised by Paragraphs 4(a), (b), and (c) of the Pre-Trial Order, February 2, 1979, p. 48. Both states were given the opportunity to object. New Mexico did not object. Texas requested that an exception be added to the Master's conclusion:

The 1947 Condition is that situation in the Pecos River Basin which produced in New Mexico the man-made depletions resulting from the stage of development existing at the beginning of the year 1947 and from the augmented Fort Sumner and Carlsbad acreage, *with the groundwater contribution to the Pecos River depleted to the extent existing at the beginning of 1947.* (Texas' Objections and Exceptions to the Report of Special Master on Issues Raised by Paragraphs 4(a), (b), and (c) of the Pre-Trial Order, April 6, 1979).

Insofar as acreage served by ground water pumping was concerned, Texas wanted the Master to express the view that the 1947 condition stage of development was not that at the beginning of the year 1947, but instead was much earlier; in other words, Texas urged that the Master should limit New Mexico to the depletion of base inflow that was already manifest in the river in 1947 rather than the depletion of that inflow which would ultimately result from the stage of ground water development that existed in 1947. Without the proposed exception it appeared to Texas that the 1947 condition stage of development would have included the ultimate effects of the contemporaneous ground water development. This exception, which would reverse the literal meaning of the conclusion, was rejected by the Master.

On April 24, 1979, oral argument was heard on the states' objections to the Master's February 2nd report. During the course of the argument some question was raised with respect to whether the Master intended in his conclusion on the 1947 condition to answer the question of liability for base flow diminution caused by the 1947 condition ground water pumping. Texas stated that the Master's ruling failed to give the states "concrete enough guidance" on the issue. (Tr. 2992). The first exchange between the Master and counsel seemed to resolve the question in New Mexico's favor:

MR. CAROOM: I think the report needs to say clearly that a depletion of the groundwater contribution to the river resulting from pumping established prior to 1947, if it causes a departure at state line from the amount required by the 1947 condition, will be chargeable against New Mexico.

SPECIAL MASTER: I am not going to say that, Mr. Caroom. As far as I am concerned, the word 'depletion,' as used in the Compact, includes all depletion, either surface or subsurface. (Tr. 2992).

A subsequent exchange appeared to resolve the issue in favor of Texas:

MR. CAROOM: All Right. Maybe this will explain the question or explain my concern. I don't know whether the Court is referring to a depletion of the groundwater reservoir or —

SPECIAL MASTER: All right. It is the depletion of the stateline flow. The Compact says not deplete the flow, the stateline flow. (Tr. 2993).

Confused by the Master's comments, New Mexico asked:

Is New Mexico entitled to the depletions manifest on the river in 1947 as a result of groundwater pumping, or depletions that would result from that stage of development existing in 1947? (Tr. 2998).

In response, the following colloquy took place:

SPECIAL MASTER: As long as it doesn't increase the depletions below what they were at that time, you comply with the Compact.

We get into too much semantics on this all the way through. The one reason you do it is because of the way this Compact is written. The Compact says you

shall not deplete, and I am trying my best to stay with the language of this Compact. It doesn't say that you shall contribute. As I told Mr. Tansey, it doesn't make any difference where the water comes from, as long as you do not deplete below what you did in 1947 you haven't violated the Compact.

MR. SIMMS: If Your Honor is saying New Mexico cannot deplete below what was in 1947 manifest in the river, it seems to me that stating that, instead of stating that we cannot deplete what would result from the '47 stage of development, is to roll back history in New Mexico: it is to say the New Mexico Legislature ratified a compact that wiped out the economy of southwestern, or southeastern New Mexico. The difference between January 1st, 1947, and the end of the year is another 10,000 acres. You are taking away from New Mexico what the Legislature never would have taken away. I find that utterly impossible to believe, if that is your decision. (Tr. 2998).

* * *

Your Honor, Royce Tipton, who guided these negotiations, told the negotiators at the point in time when they were touching this issue, that the New Mexico Legislature would never ratify such a Compact. In his mind, what was ultimately produced and agreed upon by the negotiators and later ratified by the New Mexico Legislature, was not what Your Honor is now saying it is. I don't know what says it clearer in the record.

SPECIAL MASTER: You may be right. I have been wrong lots of times. All I can do is my best. But let me say one thing, Mr. Simms, it is completely beyond my realm of comprehension as to why New Mexico and Texas did not make some legislative history when they had this Compact before the legislatures for ratification.

You didn't do that. I don't know how the States were operating then. It seems inconceivable to me that the Inflow-Outflow Manual would not at least have been put in final form a month or so after the Compact was signed. That's beyond my understanding. All I can do is the best I can on the way you have got it, and your Compact is written that New Mexico shall not deplete. (Tr. 2999-3000).

New Mexico left the hearings with the unsettled understanding that the Master's conclusion may have been intended to state Texas's position on the issue even though it literally stated New Mexico's. Assuming that to be the case we would object for the following reasons: 1) the Master's recitation of negotiating history does not lay out a sequence of facts from which it is possible to reason to such a conclusion; 2) when properly understood, Art. III(a) resolves the question of base inflow diminution through its reliance on the offsetting water salvage mandated by Arts. I and IV(a); 3) the New Mexico Legislature would not have ratified such a compact; and 4) in view of the lack of legislative history respecting the compact, the Master erred in rejecting New Mexico's evidence on intent.

Negotiating History

The Master's recitation of facts appears at some points to follow Texas's argument. *See generally*, Texas's Brief on the 1947 Condition, pp. 4-9. Initially, Texas quoted New Mexico's negotiator, John Bliss, to point out that he recognized a difference between the 1947 condition in the engineering report and the 1947 condition he insisted upon protecting:

The suggestions herein contained are based on the premise that allocations of Pecos River water between the states of New Mexico and Texas will be in perpetuity

and that in so doing, the commission must protect all existing beneficial uses insofar as possible on the basis of conditions as we find them today. By today's conditions, New Mexico does not mean the '1947' condition shown in Table I of the engineers' report, inasmuch as it is evident that the 1947 water supply will be decreased (other things being equal) by current depletions in the Roswell ground-water basin, the effect of which will not be reflected in the base flow of the river for years to come.

Accordingly, it is suggested that the proper basis for allocating the water is to provide for deliveries by New Mexico based upon the available supply in accordance with present-day conditions as above defined, providing that all future changes in flow not caused by changed beneficial use shall be charged or credited to the two states on an equitable basis to be worked out. (Stip. Ex. 14, Minutes, PRCC, March 10 and 11, 1948, pp. 36-37).

Further studies were made, including a routing study depicting contemporary conditions with the base flow depleted, designated the 1947-A condition. Texas then noted its continued insistence that New Mexico must relinquish her right to decrease the base flow — the hydrologic consequence of an agricultural economy that was largely established by 1937. Mr. Miller, the Texas negotiator, stated: "New Mexico must be responsible for and assume the burden for the taking of underground water that affects the base flow of the stream in question." (S.D. 109, p. 96).

Continuing the argument in her brief on the 1947 condition, Texas stated, in pertinent part, the first "principle" of New Mexico's proposal:

New Mexico shall agree not to deplete by man's activities, the flow of the Pecos River at the New Mexico-Texas state line below an amount which would give to

Texas the quantity of water equivalent of the 1947 condition as reported by the engineering advisory committee in its report of January 1948 and supplements thereto, adopted November 11, 1948, except as modified by paragraph 3 hereof. (S.D. 109, p. 97).

In summary Texas urged that that was that, suggesting that New Mexico had inexplicably given up the agricultural economy of the southeastern quarter of the state because Mr. Bliss had seemingly predicated the first principle upon the same 1947 condition that he had referred to a few months earlier as being different than the 1947 condition he sought to protect. Apparently the Master concluded that the drafting committee wrote the compact on the basis of this sequence of events as related by Texas, and it was approved and adopted.

This explanation of the ultimate resolution of the base flow issue does not unfold a compromise, but simply recites Texas's November 11, 1948 insistence upon the continuance of 1947 ground water depletions, and then interprets New Mexico's nine point proposal of principles on November 13, 1948, as a submission to Texas's position, notwithstanding the fact that the nine point proposal expressed the same position as that stated by Mr. Bliss on March 11, 1948. (Report of Special Master on Obligation of New Mexico to Texas Under Pecos River Compact, August 13, 1979, pp. 20-26). The Master concludes that "apparently everyone was satisfied," but as his expression suggests, the explanation does not make the sequence of events intelligible; in other words, the explanation explains nothing.

The reason that this recitation of events is not explicative of liability for base flow depletion will be discussed below. A reading of the transcript of the March negotiations shows that Mr. Bliss retained the right to New Mexico's established ground water depletions. On March 11th Mr. Bliss stated that it was "apparent . . . that when we talk about present day

conditions, we are not fully reflecting the effect of existing developments on the river." (Stip. Ex. 14, Minutes, PRCC, March 10 and 11, 1948, p. 36). With that in mind, Mr. Bliss proposed that no change in flow should be chargeable against New Mexico unless caused by increases in beneficial uses. (*Id.* at 36-37).

In response to Texas's belief that Mr. Bliss's proposal was unclear, Mr. Tipton explained:

As I understand Mr. Bliss' statement, he does not conceive present day conditions as those which are characterized in the engineers' advisory report as 1947 conditions. He visualizes present day conditions as the 1947 conditions, with the base inflow as it will actually be depleted when the full effect of the shallow ground water pumping in the Roswell-Artesia area is reflected in the flow of the river. *Mr. Bliss states, therefore, that his state is willing to freeze conditions on the river, so far as New Mexico uses are concerned . . .*⁹ (*Id.* at 42) (emphasis added).

Notwithstanding Tipton's explanation, Texas representatives repeated their view that Bliss's proposal was unclear. In response Bliss stated:

I believe that what we would agree to would be a formula or agreement which would reflect present day conditions, *substantially shown as 1947 conditions in Table I of the report*, and then add additional provisions to that base formula which would account for the changes which we contemplated in our suggestion. (*Id.* at 46) (emphasis added).

9. Note carefully Tipton's use of the word "uses" in his explanation of the proposal. The same terminology is used in his explanation of Art. III(a).

The first principle in New Mexico's proposal of November 13th does precisely that, *i.e.*, it utilized the 1947 condition in the engineering reports, qualified, as explained by Tipton, by the right to existing uses that would cause future base inflow diminution. See, Tipton's explanation of Art. III(a), S.D. 109, p. 115.¹⁰

In another exchange of thoughts in this regard, Mr. Lowry queried:

Do I understand you, then, Mr. Bliss, to say that you would be willing to start out with the proposal listed as '1947 Conditions' in the report, and from there go ahead to some equitable division of such water as might be salvaged under a joint proposal between the states. . . .? (Stip. Ex. 14, Minutes, PRCC, March 10 and 11, 1948, p. 49).

10. In discussing Tipton's explanation of Art. III(a) in which he said "... there is apportioned to New Mexico that which she was using under the '1947 condition'," the Master notes that the word "using" presents problems. There is no problem, however, if the word is read in context, as it must be, to mean the depletions of the tributary ground water sources of the Pecos River Basin associated with the *uses* existing in 1947. In this connection attention is invited to the consistency of Tipton's use of the word when read in context with the Master's statement of New Mexico's position on pp. 54-55 of his August 13, 1979 report, as well as Tipton's use of the word in explaining Mr. Bliss's proposal on March 11, 1948.

Endorsing Texas's criticism, the Master appears annoyed by New Mexico's "use theory," which, he states, he has repeatedly rejected. (Report, Sept. 7, 1979, p. 50). The facts, however, provide unequivocal support of the concept of freezing uses on the river as of 1947, as does the administration of the compact through 1970, when the administrative work was unilaterally repudiated by Texas. As will be thoroughly discussed in New Mexico's reply to Texas's objections, the Master ignores the administrative history as well.

Mr. Bliss responded by stating: "That is correct, Mr. Lowry, with one exception. We feel that the delayed effect of shallow water pumping will have to be taken into account. . . ." (*Id.*). Mr. Tipton also took it upon himself to explain the basis of the agreement:

Going back to New Mexico's proposal — the base schedule could reflect the so-called '1947 Condition.' That base schedule then, would be subject to modification in either direction. If no salvage of water were made by reducing non-beneficial consumption, the base schedule would be modified by reducing quantities of water to be delivered to Texas to reflect increased depletions in stream flow by present pumping of the shallow ground water in what has been termed the Roswell-Artesia Area. The base schedule reflecting the 1947 condition would be subject to modification in the other direction, which would result in a schedule which would cause the delivery of greater quantities of water to Texas to reflect an equitable apportionment of water which would be salvaged under that condition by the by-passing of the salt cedars at the head of Lake McMillan, or by other means. (*Id.* at 49-50).

As defined in the compact, the Pecos River is more than its surface manifestation flowing within a definable bed and banks. *See*, Art. II(a) and (b). The river consists of the water flowing on the surface, and the tributary ground waters. *See*, Tipton's explanation, S.D. 109, p. 112. The 1947 condition relates to a stage of development on the entire system, not simply to the surface flow. (*Id.* at 113). As explained by Mr. Bliss and Mr. Tipton — and understood by Mr. Lowry — the "freeze on the river" did not include a "freeze" on the projected further depletion of stream flow by continuation of already established depletions of the tributary ground waters of the Pecos River Basin. It did include a freeze on ground water uses at the 1947

level, and it was in this way, as the Master has noted, that "New Mexico accepted a limitation on its depletions."

Art. III(a) is Expressly Indifferent to the Question of Liability for Base Inflow Diminution.

The Master has stated:

The Compact negotiators rejected the engineers' routing study 1947-A, which was predicated on "base flow fully depleted," see item 8 in table appearing on p. 95, S.D. 109. Instead, they acted on the 1947 routing study, Appendix A. The Master again rejects the New Mexico use theory. (Report, Sept. 7, 1979, p. 50).

Apparently, it is the Master's conclusion that the rejection of 1947-A, which routed water through the 1947 condition with the base flow fully depleted, was tantamount to a rejection of New Mexico's persistence that she be able to continue the ground water depletions established by 1947. If this view were correct, however, the word "equivalent" would not be needed and would not appear in Art. III(a). Instead, it would read: ". . . New Mexico shall not deplete by man's activities the flow of the Pecos River at the New Mexico-Texas state line below the quantity of water available to Texas under the 1947 condition." The fundamental fact that the Master does not comprehend is that the use of the word "equivalent" facilitates the exchange of water made available by salvage for water depleted by base inflow decline.

If the compact had been based upon the 1947-A study, its basic provision — the built-in flexibility enabling a substitution of the *source* of supply of the water received under the 1947 condition — could not have been incorporated into the compact. The Master's understanding of Art. III(a) fails to

comprehend the essence of the agreement. The most logical study to examine the basis agreed upon would have been one with salt cedars eliminated and base inflow fully depleted. This condition with respect to state line flow is precisely that reflected by "Summary of Operations - 1947." That routing study used the base inflow as it was in 1947 and the non-beneficial uses as they existed in 1947. Because the potential salvage, as measured at Avalon, estimated by the engineer advisors was virtually equal to the engineers' estimate of the ultimate decline in base inflow, as measured at Avalon, the "Summary of Operations - 1947" reflects the state line flow that would have resulted with the potential salvage effected and the 1947 base inflow completely depleted.

It is important to note that in all of the engineering analyses of the Pecos River the base inflow to the Acme-Artesia reach is not treated as a part of the index inflow. That is, Plate No. 2 as it appears in S.D. 109 or in the Review of Basic Data would reflect any diminution of base inflow resulting from ground water uses established in 1947 or earlier as an underdelivery, all other things remaining unchanged. It should not be inferred from this that a departure from the relationship of Plate No. 2 resulting from such a diminution is chargeable against New Mexico as a depletion of the stateline flow as a result of a change in depletion by man's activities. As a practical matter, Plate No. 2 could not have been drawn to reflect a progressive change in base inflow. Had it been drawn to reflect conditions with the base inflow entirely depleted, as it could have been, New Mexico would have been able to sharply increase uses after 1947 and then gradually reduce those uses as delayed effects of 1947 ground water pumping were reflected in the base inflow and Texas's interest would have been detrimentally affected more as compared to simply recognizing New Mexico's entitlement to all surface and ground water uses established in 1947 or earlier.

Texas sought an agreement based upon Proposed A, *i.e.*, the river operation "assuming the salt cedars to [have been] bypassed and all other conditions to remain as of 1947." (S.D. 109, p. 10). New Mexico could not agree because "the condition presupposes. . . the successful elimination. . . of the non-beneficial uses of water by the salt cedars. . .," and because "the proposal places the full obligation upon the State of New Mexico." (Stip. Ex. 14, Minutes, PRCC, March 10 and 11, 1948, p. 23). Mr. Bliss stated further that if. . . water is to be saved in the basin, Texas should participate in the saving; but if there is any question of maintaining that condition, or, if the river channel should deteriorate so that condition cannot be maintained through the years, then Texas should share in the reduction resulting therefrom.

It was apparent that both states were in agreement that an apportionment based on the concept of the 1947 condition adjusted by water salvaged would be satisfactory, but they could not state the concept with enough specificity. Texas kept insisting on a fixed quantity of delivery at the state line, but Mr. Bliss pointed out that "it is impossible at the present time to evaluate the deliveries at the state line which could be made under this proposal." According to Mr. Bliss:

The amount of such deliveries, as I see it, would be a variable quantity depending on two factors. One would be the increased effect of the shallow water pumping in the Roswell basin. The other would be the variable effect of non-beneficial uses of water in the basin. As New Mexico conceives it, the salt cedar problem can be substantially corrected by the proposed works above Lake McMillan. However, it is conceivable that such works will not solve the entire problem in that salt cedars may, and probably will, encroach on other sections of the stream, both in Texas and in New Mexico and we feel that it is a joint problem in which the two

states are mutually interested and which is to their mutual advantage to solve. I will confess that at the present time, I can not visualize just what formula or type of formula could be agreed upon which would reflect the proposal we have made. I think that we could probably arrive at a schedule or formula which would reflect present day conditions but a provision would have to be made to vary such a formula to account for works to be constructed in the future or for changes in non-beneficial uses along the stream which it would be the joint obligation of the two states, presumably through the Federal Government, to correct. (*Id.* at 45).

As envisaged by Mr. Bliss, the basic apportionment would be based on the 1947 condition, but subject to modification in two directions, one of which would have resulted in a greater stream flow depletion under the same stage of development because of base inflow diminution, and the other of which would have resulted in a larger state line yield because of the elimination of non-beneficial depletions. What Mr. Bliss could not visualize was "just what formula. . . could be agreed upon which would reflect the proposal we have made." (*Id.*). It is evident that the negotiators subsequently realized that the "Summary of Operations - 1947" expressed the formula that Mr. Bliss was seeking. The formula was implemented by recognizing in drafting Art. III(a) that projected water salvage would give both states a water supply equivalent to that enjoyed before the suggested diminution of base inflow.

Texas was still not satisfied with Mr. Bliss's explanation; she needed a more "definite statement. . . ." (*Id.* at 46). Attempting to settle any remaining questions, Mr. Tipton noted that he thought both states were attempting to agree on the same thing, but stating it differently. He explained the concept as follows:

... the base schedule could reflect the so-called '1947 Condition.' That base schedule then, would be subject to modification in either direction. If no salvage of water were made by reducing non-beneficial consumption, the base schedule would be modified by reducing quantities of water to be delivered to Texas to reflect increased depletions in stream flow by present pumping of the shallow ground water in what has been termed the Roswell-Artesia Area. The base schedule reflecting the 1947 condition would be subject to modification in the other direction, which would result in a schedule which would cause the delivery of greater quantities of water to Texas to reflect an equitable apportionment of water which would be salvaged under that condition by the bypassing of the salt cedars. . . (S.D. 109, pp. 49-50).

The negotiators were aware that the compact was to be an agreement in perpetuity, but the basic condition upon which the states could agree was subject to potential, conflicting influences. The question was how to articulate an apportionment that could change in either direction. Toward the close of the March meeting, Mr. Bliss stated:

I feel that either the engineering committee or New Mexico will have to attempt an evaluation of the negative effects contemplated by our suggestion. . . . If it is agreeable to the commission, I suggest that the engineering committee attempt such an evaluation. (Stip. Ex. 14, Minutes, PRCC, March 10 and 11, 1948, pp. 60-61).

Judge Moise, the New Mexico legal advisor, quickly added: "Would you add to that an outline of a formula, not necessarily setting forth the amounts, but a method by which that effect could be taken into account? "

The commission's negotiations in March, 1948, resulted in three instructions to the Engineering Advisory Committee: 1) that they analyze the offers of each state, 2) that they estimate the effect of ground water pumping on the base flow of the river, and 3) that they consider any other possible basis of an apportionment. (Stip. Ex. 14, Minutes, PRCC, Nov. 8-13, 1948, pp. 11-12). The committee's conclusions were reported to the commission in the December 3, 1948 Supplement to the Report of January, 1948 by the Engineering Advisory Committee. (S.D. 109, p. 133). In presenting the supplemental report to the commission, Mr. Tipton observed that "the limits of the field for negotiating a compact" . . . had been "narrowed materially." (Stip. Ex. 14, Minutes, PRCC, Nov. 8-13, 1948, p. 20).

The illusory "formula" which would utilize the 1947 condition, but accommodate changes in both directions caused by base flow diminution on the one hand and water salvaged on the other, appears in Art. III(a) in the form of the word "equivalent." The negotiators were aware that Texas would not continue receiving the water she would have received under the 1947 condition because of the projected, gradual base flow diminution under that condition, *a condition which included the 1947 ground water pumping*. On the other hand, the negotiators anticipated that the *status quo* could be maintained in both states if water being non-beneficially consumed were salvaged, thus offsetting base flow diminution. Accordingly, the water that Texas was to receive pursuant to the agreement embodied in Art. III(a) was water "equivalent to that available to Texas under the 1947 condition" and, conversely, "there is apportioned to New Mexico that which she was using under the '1947 condition'." (S.D. 109, p. 115). In light of this agreement, the 1947 ground water uses *must* have been a part of the 1947 condition. Otherwise, the language facilitating a substitution of source of supply would have been unnecessary,

and the negotiators would have been wasting their time looking for a way in which to express the dynamic nature of the agreement.

Art. III(a) provides that "New Mexico *shall not deplete by man's activities* the flow of the Pecos River. . . below an amount. . . equivalent to that available. . . under the 1947 condition." The ground water uses existing in 1947 resulted, of course, in depletions by man's activities. In agreeing to freeze conditions upstream, New Mexico agreed to cause no more depletion to the *system* than was already being caused, that is, to initiate no *new* activities of man that would deplete system waters. Accordingly, the agreement not to deplete by man's activities complements the retention by New Mexico of the right to continue the 1947 ground water uses, as evidenced by the "formula" designed to facilitate the substitution of water diminished by base inflow declines with water salvaged.

While not answered by the terms of Art. III(a), the question of liability for base flow diminution is answered by reference to the compact's water salvage provisions. In her objections to the Master's report of August 13, 1979, Texas argued that "it was the intent of the New Mexico negotiators to make up for base flow declines with salvaged water." (Texas's Objections, p. 4). New Mexico agrees, with the understanding that each state anticipated that water would have to be salvaged to continue her supply. Texas maintains that New Mexico shouldered the responsibility alone. The Master, it would appear, agrees with New Mexico on this point, notwithstanding his apparent decision to eliminate the ground water uses from the 1947 condition stage of development. (Report, Sept. 7, 1979, p. 26). Both the compact provisions regarding water salvage and the history of lack of accord over the meaning of Art. III(c), support New Mexico's understanding. When apprised of the significance of water salvage in this regard, the Master

responded tersely that "(w)ater salvage has nothing to do with the 1947 condition." (Report, Sept. 7, 1979, p. 50).

In pertinent part, Art. IV of the compact reads:

(a) New Mexico and Texas shall cooperate to support legislation for the authorization and construction of projects to eliminate nonbeneficial consumption of water.

(b) New Mexico and Texas shall cooperate with agencies of the United States to devise and effectuate means of alleviating the salinity condition of the Pecos River.

(c) New Mexico and Texas each may:

(i) Construct additional reservoir capacity to replace reservoir capacity made unusable by any cause.

(ii) Construct additional reservoir capacity for the utilization of water salvaged and unappropriated floodwaters apportioned by this Compact to such state.

(iii) Construct additional reservoir capacity for the purpose of making more efficient use of water apportioned by this Compact to such state.

(d) Neither New Mexico nor Texas will oppose the construction of any facilities permitted by this Compact, and New Mexico and Texas will cooperate to obtain the construction of facilities that will be of joint benefit to the two states.

With respect to the elimination of non-beneficial use and the salvage of water, the emphasis is on cooperation; salvage was conceived to be a joint responsibility requiring a joint program of action. In explaining the article, Mr. Tipton stated:

Mr. Chairman, subparagraph (a) relates to the cooperation of the two States to support legislation and

authorization for the construction of projects to eliminate nonbeneficial consumption of water. *I believe that is an exceedingly important provision of the compact. The compact will permit that being done. The compact makes it mandatory to do that.* There is a fairly large quantity of water that can be made usable by the construction of the proper works. (S.D. 109, p. 120).

Not only did Tipton view salvage as a joint responsibility, he understood it as being made "mandatory" by the compact in light of the fact that the compact wouldn't work without salvage. He made the same comment a number of years later in an article prepared from a talk given in Santa Fe to the Governor and members of the legislature:

About the year 1927 the pumping of shallow ground water in the area extending from Roswell to Artesia commenced. This development increased fairly rapidly until 1937 when the State Engineer of New Mexico closed the basin to further development, thereby preventing the use of additional shallow ground water. However, by the time the Compact was negotiated the withdrawal of the (shallow ground) water had decreased the base flow of the river by about 30 cubic feet per second. The Ground Water Division of the U.S. Geological Survey estimated that the full effect of the pumping as now controlled will not be felt for many years and that in spite of such control and the probable restoration of some of the flow to the river from the artesian area because of control within that area, there will be an additional depletion of inflow to the river.

When the Pecos River Compact Commission negotiated a compact, all of these matters were fully recognized. The following is quoted from Article IV of the Compact:

'(a) New Mexico and Texas shall cooperate to support legislation for the authorization and construction

of projects to eliminate nonbeneficial consumption of water.

'(b) New Mexico and Texas shall cooperate with agencies of the United States to devise and effectuate means of alleviating the salinity conditions of the Pecos River.'

These provisions indicate plainly that the Commission had in mind at the time it negotiated the compact an Action Program to take care of these two situations to the extent possible. *It was recognized that some of the water salvaged by reducing nonbeneficial consumption would be needed to offset the additional depletion caused by the shallow ground-water pumping.* (Tipton, R.J., "One or the Other, A Resume of Pecos River Problems," Hearing before the Subcommittee on Irrigation and Reclamation of the Committee on Interior Insular Affairs, United States Senate, 84th Cong., 2d Sess. on S. J. Res. 155, May 10, 1956, pp. 4-5) (emphasis added).

The water salvage provisions of the compact make it clear that the compact was remedial in nature and that a program of action to remedy the problem of non-beneficial consumption was contemplated to be jointly undertaken by the Pecos River Commission, which was created in Art. V of the compact. In the report of the Engineering Advisory Committee in 1955 entitled "Initial Development Water Salvage and Salinity Alleviation Action Programs - Pecos River Basin," the remedial action was described as follows:

When the Pecos River Compact Commission negotiated a compact, these matters and others were fully acknowledged. After years of negotiation a compact was signed in Santa Fe on December 3, 1948. The Congress of the United States gave its consent to the Pecos River Compact by Public Law 91, 81st Congress,

1st Session. The following is quoted from Article IV of the Compact:

'(a) New Mexico and Texas shall cooperate to support legislation for the authorization and construction of projects to eliminate nonbeneficial consumption of water.

'(b) New Mexico and Texas shall cooperate with agencies of the United States to devise and effectuate means of alleviating the salinity conditions of the Pecos River.'

These provisions indicate plainly that the Commission had in mind at the time it negotiated the compact a program to take care of these two situations to the extent possible.

An interstate administrative agency to be known as the Pecos River Commission was created in accordance with Article V of the compact. This commission has studied the problems of nonbeneficial water consumption and salt contamination.

(Hearing before the Subcommittee on Irrigation and Reclamation of the Committee on Interior and Insular Affairs, United States Senate, 84th Cong., 2d Sess., on S. J. Res. 155, May 10, 1956, p. 14).

In further testimony before the subcommittee on the problems of non-beneficial use and excess salinity, Mr. Tipton stated succinctly:

The compact commission in negotiating the compact recognized fully the problems which confronted the river. *The compact commission in drafting the compact obligated the commission to do something about it. (Id. at 9) (emphasis added).*

The water salvage provisions of the compact make it clear that the compact was remedial in nature and that *both* states

intended to offset the ultimate complete depletion of the base inflow resulting from the continued ground water withdrawals projected by the engineers by cooperative efforts to salvage ground water. The engineers had advised the negotiators that the estimated potential water salvage as measured at Avalon slightly exceeded the projected diminution of supply from base inflow as measured at Avalon. (S.D. 109, p. xxxiii, p. 138, and p. 141). The provisions addressing water salvage in Art. I, Art. III(a), and Art. IV(c) are based on this advice.

In New Mexico's objections August 31, 1979 to the Master's report of August 13, 1979, we attempted to explain New Mexico's position on the matter historically, along with Texas's refusal to cooperate, and the Master rejected it as having "nothing to do with the 1947 condition." (Report, Sept. 7, 1979, p. 59). We believe it is clear that the Master is wrong and that a decision on the question of apportionment of "water salvaged" is essential to a resolution of issue 4(a) of the Pre-Trial Order that will facilitate conduct of the remainder of the trial. New Mexico's position on the apportionment of water salvage was first stated at least as early as August 29, 1962, in S. E. Reynolds' letter to John J. Vandertulip, the chief engineer of the Texas Water Commission. (Tr. 1913-14). That position was again stated in Commissioner T. E. Lusk's May 1963 statement before the Senate Interior and Insular Affairs Committee on S. J. Res. 49, as follows:

In this regard it is the position of New Mexico that any water salvaged by reason of activities authorized by S. J. Res. 49 would not be subject to apportionment in accordance with Article III(c) unless the amount salvaged exceeds the total by which ground water pumpage already established in 1947 and increases in non-beneficial consumptive use have reduced the flow of the Pecos River since 1947. At whatever time and to whatever extent the amount salvaged under the provisions of the

legislation exceeds this total, Texas would receive in accordance with Article III(c) of the compact at least 43 per cent of this excess as spill and return flow from the works and irrigated lands of the Carlsbad Irrigation District or otherwise. [H.R. Rep. No. 1572, 88th Cong., 2d Sess. 33 (1964)].

Texas has neither agreed nor disagreed with this New Mexico position despite Mr. Tipton's efforts to obtain a response. (Stip. Ex. 14, Minutes, PRCC, Nov. 9, 1962, p. 258). At the proceedings in the conference of engineers with the Technical Assistant in October of 1978, the Texas engineers again neither agreed nor disagreed with the New Mexico position. (Tr. 2897).

In response to the Master's statement pointing out that New Mexico's 57 per cent of the projected water salvaged would not be sufficient to offset the effect of the ultimate complete depletion of base inflow on the flow at the state line (Report, August 13, 1979, p. 30), Texas argued:

While Article III(c) does allow New Mexico only 57 per cent of the salvaged water, Mr. Tipton's comments on salvaged water clearly indicate that New Mexico is entitled to use all the salvaged water that comes downstream, so long as 43 per cent reaches the state line (S.D. 109, pgs. 119 and 125). The ability to use Texas' salvaged water as it passes downstream assumes special importance when one recalls that the Carlsbad Irrigation District has a return flow of 47 per cent (T.R. 558-559). This circumstance would allow the District to divert 100 per cent of the salvaged water and still supply Texas its 43 per cent. (Texas's Objections, p. 5).

Texas's position fails to recognize the simple arithmetic of the matter. If New Mexico is obliged to deliver at the state line as return flow from the Carlsbad Project 47 per cent of the base inflow as measured at Avalon and is further obliged to deliver at the state line 43 per cent of water salvaged as measured at

Avalon, these obligations clearly cannot be met with New Mexico's 57 per cent of the water salvaged, even if the water salvaged as measured at Avalon is equal to the base inflow depletion as measured at Avalon as the engineers in 1947 predicted that it would be.¹¹

Satisfaction of the fundamental purpose of the compact "to make secure and protect development within the states" requires that none of the water salvaged up to the amount of the base inflow depletion occurring after 1947 as a result of the continuation of uses existing in 1947 be apportioned 57 per cent to New Mexico and 43 per cent to Texas. Only that portion of the water salvaged in excess of the base inflow depletion since 1947 would be apportioned 57 per cent to New Mexico and 43 per cent to Texas. If all water salvaged to offset the base inflow depletion were apportioned 57 per cent to New Mexico and 43 per cent to Texas, the supply available to New Mexico would be decreased as the base inflow declines are offset by water salvaged, while Texas's supply would be increased above the supply available to Texas under the 1947 condition. If the water salvaged is apportioned as New Mexico contends it should be, each state's supply would continue the same as before the post-1947 base inflow depletion in accordance with the stated purpose of the compact in Art. I.

11. If the 1947 condition base inflow as measured at Avalon were 39,000 acre feet, Texas would be entitled to 18,330 acre-feet of that amount ($39,000 \times .47 = 18,330$). If the base inflow were entirely depleted and salvage in the amount of 39,000 acre-feet as measured at Avalon had been effected, Texas additionally would be entitled to 16,770 acre-feet of that salvage ($39,000 \times .43 = 16,770$), for a total of 35,100 acre-feet. Thus, New Mexico would be required to deliver 16,770 acre-feet annually in addition to the amount Texas was receiving with the base inflow at the 1947 level.

Texas's arguments cited above might be construed as a contention that Texas is entitled to 47 per cent of the 1947 condition base inflow as measured at Avalon and in addition is entitled to 43 per cent of any water salvaged to offset that base inflow depletion as measured at Avalon. It would be as logical and reasonable for New Mexico to claim she is entitled to completely deplete the base inflow, as the engineers projected would happen under the 1947 condition, and in addition is entitled to 57 per cent of any water salvaged. New Mexico does not so claim. Such an apportionment would increase above the 1947 condition the supply available to New Mexico and decrease below that condition the supply available to Texas.

While the compact does not explicitly address the situation in which water salvage is not effected to offset the projected post-1947 base inflow depletion, there can be no question that it was contemplated that the supply in both states would suffer. Texas would lose the estimated 47 per cent of the base inflow as measured at Avalon that reached the state line before that depletion occurred. While New Mexico is entitled to continue operation of the works constituting the 1947 condition stage of development in New Mexico, she would not be able to increase storage capacity or change the source of supply of uses from surface water to ground water if such modifications would result in a depletion at the state line greater than would have resulted from continued operation of the works constituting the 1947 condition stage of development. Consequently, it must be expected that when the base inflow is completely depleted and water salvage has not been effected to offset that depletion, New Mexico's supply would be decreased by 53 per cent of the post-1947 base inflow depletion, assuming all other things would remain unchanged, as we must to intelligibly discuss the matter.

New Mexico submits that it is essential that in formulating a decision defining the 1947 condition the Court must recognize

the complementary nature of the provisions related to water salvage in Articles I, III(c), and IV(a). While in 17 years Texas has never disagreed with New Mexico's position on the apportionment of water salvage, neither has she agreed. A decision on the apportionment of water salvaged is essential to a useful resolution of the 4(a) issue. By refusing to recognize the complementary nature of the provisions of Art. III(a), which apportions the water equivalent to that which Texas would have received under the 1947 condition, and Articles I, III(c), and IV(a), the Master has made it impossible to understand the essence of the compact.

Legislative Approval

The compact was signed on December 3, 1948, approved by the New Mexico Interstate Stream Commission on January 10, 1949, and ratified by the New Mexico legislature on February 9, 1949, not because the base inflow issue was resolved by New Mexico relinquishing its ground water development, but because of the prospect of water salvage. If New Mexico had given up its ground water depletions, it is clear that the compact never would have been approved or ratified. In explaining the basis of the agreement on November 13, 1948, to the negotiating commission, Mr. Tipton said:

I believe that a compact could be written around the principles as presented. It is fairly obvious to me that one of the fundamental principles involved here, that of a guaranty by New Mexico not to deplete the flow of the river below essentially present conditions or, conversely, that there should be delivered at the State line that which Texas is receiving with some modification is a fair provision. I believe it is fair to both States. I don't believe New Mexico in good conscience could say we're going to deliver less than that. I don't believe Texas should require more because a compact could

not be ratified by New Mexico, I don't believe, under those conditions. (S.D. 109, p. 98).

Assuming the Master intended to make New Mexico alone liable for base flow declines in the absence of water salvaged, the net effect would be that the 1947 condition development in the Roswell Underground Water Basin, which is most of the development in New Mexico, would be the approximately 100,000 acres under irrigation in 1939 instead of the approximately 125,000 acres irrigated in 1947. Compounding the inequity of such a definition is the fact that the base inflow responds very slowly to changes in the rate of ground water withdrawals. To promptly restore the base inflow of the "1947 condition" as defined by the Master on April 24, 1979, would require a reduction in acreage to an amount far below that irrigated in 1939; it might be necessary to reduce the acreage to as little as the 56,000 acres irrigated in 1926.¹² Over a period

12. Article IX of the compact requires that in all instances New Mexico shall apply the principle of prior appropriation in maintaining flows at the state line. In general, surface water uses in New Mexico are the most senior, followed by the artesian ground water uses and then the shallow ground water uses. The base inflow responds most slowly to changes in shallow ground water withdrawals. Accordingly, virtually all of the shallow ground water use in New Mexico would have to be terminated before an early, substantial increase in state line flow could be realized by reducing artesian ground water and junior surface water uses. The Master's statement that "the source of flow is immaterial" is not correct. Furthermore, the statement that "the Compact says nothing about contributions to the stream from any source" is not correct. Priority of appropriation would necessarily arrange any required contribution.

In response to these facts the Master has stated:

The contention is that the impact of the Master's definition of the 1947 condition and of the quoted Compact provision will reduce the irrigated acreage in New Mexico. The record contains no evidence one way or the other on this point. As pointed out

Cont'd next page.

of several decades the irrigation might be restored to the 1939 level, but the economic disaster of the initial reduction would be little ameliorated by that restoration. Had New Mexico been required to maintain the 1947 condition precipitation-base inflow relationship upon the effective date of the compact, it would have been necessary forthwith to have reduced the irrigated acreage to an amount well below the 1939 level, but not to the extent that it would be necessary to promptly restore the relationship at this time.

The only testimony in the record that addresses the issue reiterates that the compact never would have been signed if New Mexico had to give up its ground water depletions. *See*, Deposition of Irwin S. Moise, November 2, 1976, p. 43; Deposition of John R. Erickson, November 23, 1976, p. 6; and Tr. 890. The Master, however, deemed it inadmissible.

New Mexico's Evidence of Intent

There are three ways in which the Court and the Master could have learned of the intent of the compact negotiators: 1) through documentary evidence or testimony on intent;

12. *Cont'd from page 81.*

in the Master's Report, the States rejected irrigated acreage as a method of apportionment. (Report, Sept. 7, 1979, p. 51).

It is not relevant that there is no evidence in the record illustrating the consequence of the Master's decision, though the facts are not controvertible. We simply wanted him to understand what he was doing and to realize that the New Mexico legislature never would have sanctioned the compact as he has orally construed it.

Further, it is not relevant that the states rejected irrigated acreage as a method of apportionment. They obviously did not reject the concept of routing annual supplies of water through a condition or set of circumstances on the river to evaluate bases of compacts that would protect irrigated acreage.

2) through the express language of the compact and its explanation by Mr. Tipton; and 3) through post-adoptive administrative construction. Given the apparent ambiguity of the compact provisions — at least the parties' opposing interpretations of those provisions — one would expect the Master to look to the first and third ways of ascertaining the facts. However, the Master rejected both modes of proof. Both provide unwavering support for New Mexico.

For reasons counsel for New Mexico do not understand, there is no record of any explanatory information provided to either the New Mexico or Texas legislatures when the compact was ratified, that is, no legislative history exists in support of either side. Consequently, New Mexico offered the testimony of John Bliss, New Mexico's representative to the negotiating commission, John Erickson, New Mexico's engineering advisor to the negotiators and a member of the Engineering Advisory Committee during compact administration, and Judge Irwin Moise, a retired New Mexico Supreme Court Justice who served as one of New Mexico's legal advisors during negotiations and the early years of the compact's administration. The Master rejected the testimony on the ground that "(t)he pertinent intent is not that of the negotiators but rather that of the legislatures of the respective states when they ratified the Compact and that of Congress when it gave the consent of the United States to the compact." (Report of the Special Master on His Decision and Supplemental Decision Regarding the Affirmative Defenses of New Mexico to the Complaint of Texas, July 6, 1977, p. 14).

At trial, however, Texas sought to introduce evidence of intent in the form of memoranda that ostensibly described "offers and counteroffers." New Mexico objected because the memoranda were hearsay, the authors were not subject to cross-examination, and more importantly, because the Master

had earlier ruled that no pre-compact evidence of intent would be admissible unless it was embodied in writing and communicated to the respective legislatures. *See*, Tr. 613-629. The Master, however, admitted Texas's evidence on the theory that it "does not go to intent but shows either an offer or counteroffer of the State of Texas before the execution and ratification of the Compact." (Tr. 626). The Master did admit that "(t)he line of demarcation between intent and offer and counteroffer is pretty thin." (Tr. 626).

New Mexico believes that the line is not only pretty thin, but arbitrarily unfair. The Master appears to rule that the intent of the compact provisions is to be determined by *legislative* intent, although Texas may present evidence of what offers or counteroffers were made, *i.e.*, evidence respecting the intent of a *contract*. As far as we can discern, the contents of the offers or counteroffers are relevant only to show the intent of the compact. The distinction, if it can be made this simply, seems logically untenable. The Master appears to want to have his cake as a "legislation theory" and also to eat it as a "contract theory." He erred in admitting Texas's evidence and rejecting New Mexico's.

CONCLUSION

The Master characterizes the fact that his oral construction of his conclusion on the 1947 condition would reduce irrigated acreage in New Mexico as a "contention," further explaining that "(t)he record contains no evidence one way or the other on this point." *See*, footnote No. 12, p. 81, *supra*. The fact of the matter is that the Master's construction of the compact would obliterate the economy of the Pecos River Basin in southeastern New Mexico. By ignoring the water salvage provisions of the compact, the Master's decision could slice in half the 125,000 acres of ground water irrigation in existence in

New Mexico in 1947, depending upon the way in which the Court would order such a decree effectuated.

To accept the Master's decision, the Court must believe that the New Mexico legislature agreed in 1949, when it ratified the Pecos River Compact, to the protection of only the 100,000 acres of ground water irrigation existing in 1939 instead of the approximately 125,000 acres existing in 1947. The New Mexico legislature has never been so cavalier. Such an apportionment of the waters of the Pecos River could never have happened, in equity or in reality.

New Mexico therefore requests that the Court overrule the Special Master and remand the case with instructions to proceed with trial with the understanding that: 1) the 1947 condition is that situation in the Pecos River Basin which produced in New Mexico the man made depletions resulting from the stage of development existing in 1947 even though the effects of those depletions had not yet been fully reflected in the flow of the river, and 2) the development that occurred during the year 1947 is part of that condition.

Respectfully submitted,

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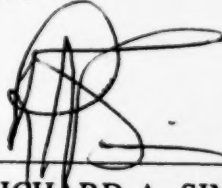
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CERTIFICATE OF SERVICE

Pursuant to Rules 42(5) and 33 of the Supreme Court Rules, I certify that three copies of the foregoing objections and brief in support thereof were served upon counsel of record on November 29, 1979.

A handwritten signature in black ink, appearing to be 'R. A. Simms', written over a horizontal line.

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NO. 65, ORIGINAL

* * *

IN THE

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1975

* * *

THE STATE OF TEXAS,

Plaintiff

V.

THE STATE OF NEW MEXICO,

Defendant

* * *

**OBJECTIONS TO THE REPORT OF THE
SPECIAL MASTER ON THE OBLIGATION OF
NEW MEXICO TO TEXAS UNDER THE PECOS
RIVER COMPACT**

* * *

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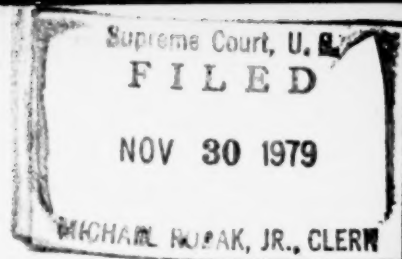


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THE STATE OF TEXAS,

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OBJECTIONS TO THE REPORT OF THE
SPECIAL MASTER ON THE OBLIGATION OF
NEW MEXICO TO TEXAS UNDER THE PECOS
RIVER COMPACT

* * *

I. OBJECTION

Texas objects to the Master's Conclusion that the 1947 Condition is something other than that situation defined and described in the Report of the Engineering Advisory Committee.

II. STATEMENT OF THE CASE

The Report of the Special Master has, for the most part, fairly stated the nature of this case. In four respects, however, some elaboration or correction of the Master's statement is necessary. The Master's treatment of (a) the engineering methods and techniques underlying the Compact, (b) the interrelation between the Report of the Engineering Advisory Committee and Compact negotiations, and (c) the administrative history of the Pecos River Commission all require further clarification or explanation. These will be treated below. Additionally,

the Master's description of the Texas position regarding the 1947 Condition mischaracterizes that position; this will be dealt with in the Argument portion of this brief.

A. Engineering Methods and Techniques

The 1947 Condition is defined by the Compact as "that situation described and defined in the Report of the Engineering Advisory Committee." Examination of that report shows that "1947 Condition" is the name of a river routing study performed by the committee. Additionally Article VI of the Compact provides that the "inflow-outflow method" shall be utilized for making administrative computations under the Compact.

A working knowledge of the fundamentals of a "river routing" study and the "inflow-outflow method" is essential to understanding the apportionment of water under the Pecos River Compact and the administration of that apportionment.

(1) "Routing Study"

As the Master indicates, a routing study is a mathematical model of the river which numerically presents the flow of the river at given points and times under assumed conditions.¹ By this technique engineers are able to depict how the river would operate under various sets of conditions. As described by New Mexico witness Erickson,² the purpose of a routing study is to

¹The term "River Routing Study" occasionally gives rise to some confusion; it has nothing to do with changing the location or route of the river. It is synonymous with the term "River Operation Study" and refers to a simple arithmetic model of the River's performance under hypothetical or assumed conditions. Hydrologists routinely perform such studies, e.g., prior to construction of a new reservoir to determine the effectiveness of the reservoir and its impact on water availability or flooding.

²Tr. 894-896.

superimpose a set of conditions on the water supply in a river basin. First the water supply available under "virgin conditions," conditions prior to development of any uses on the river, is ascertained. Then the conditions which the routing study is intended to depict are superimposed upon that water supply. In the case of the 1947 Condition routing study, the conditions imposed upon the virgin water supply were those approximating conditions on the river during Compact negotiations.

The process is, perhaps, most easily understood by use of a specific example. Referring to the 1947 Condition routing summary reproduced in Appendix A of the Master's Report, the first column is inflow into Alamagordo Reservoir. It shows the natural or virgin inflow into the reservoir each year, as it has been influenced by 1947 Condition uses above the reservoir. Considering the year 1905, for example, it shows the inflow which would have entered the reservoir that year if the reservoir had been in existence then. It is based upon streamflow records from the year 1905, adjusted to reflect upstream 1947 Condition uses. The second column shows the irrigation release from the reservoir. It is based upon the irrigated acreage for the Ft. Sumner and Carlsbad irrigation projects, assumed to be existing as part of the 1947 Condition. The irrigation release varies from year to year because the demand for irrigation water varies each year according to rainfall. Thus, the 1947 Condition acreage is assumed to exist in 1905, the precipitation occurring in 1905 is considered, and the water necessary to irrigate that acreage considering the amount of 1905 rainfall is calculated. Similarly, based on precipitation records and the amount of water which would have been in Alamagordo Reservoir in 1905, the water which would have been lost to evaporation in 1905 is calculated. The fourth value, "spills" from Alamagordo Reservoir, represents the water entering the reservoir which exceeds available storage capacity. This column shows the water which

would have spilled from the reservoir in 1905, given the 1905 inflow, irrigation releases and evaporation. The river routing study thus presents a picture of what would have occurred in 1905 if the 1947 Condition developments were in place at that time, i.e., if Alamogordo Reservoir had been in place and if the 1947 Condition acreage of the Ft. Sumner and Carlsbad projects were being irrigated. A similar process is repeated for the entire length of the river. Reservoirs, uses, losses, and groundwater contribution all reflect the 1947 Condition, while the surface water supply each year depicts that which was actually available.³

The routing study, performed in this manner for the entire river, over the entire period of record, shows how the river would have responded if the 1947 conditions of development had been in place throughout that period. This routing study serves as the standard for apportionment of water under the Pecos River Compact. It amounts to a sampling technique, using the entire period of record as a sample base. It depicts the amount of water which would be available at the state line, under conditions of development approximating those existing during negotiations, for the entire range of natural water supply conditions that existed during the historic period for which records were available. For any natural condition of water availability existing

³It is important to note, if one is studying the "Summary of Operations" provided in Appendix A of the Master's Report, that it is only an annual summary. The actual routing was accomplished using monthly routings of the flows. Consequently the values shown in the annual summary do not, and should not, always add up to an arithmetic balance. Computation of reservoir spills present a clear example of this phenomenon. If, for example, a major amount of flood inflow reached a reservoir early in the year, prior to the irrigation releases and prior to much of the reservoir's annual evaporation loss, a spill could easily occur that month while the annual values might show a total inflow less than the total of irrigation releases and evaporation. Thus, the annual summary might show a spill for no apparent reason.

in a post Compact year, so long as it is within the range of natural water supply conditions considered by the study, reference to the study will disclose the amount of water which would have reached the state line under 1947 conditions.

(2) "Inflow-Outflow Method"

For the routing study to serve as a standard in the inflow-outflow method it is first necessary to establish a correlation or relationship between the inflow occurring during the period of the routing study and the outflow produced by the routing. This was done in the Inflow-Outflow Manual;⁴ the resulting correlation is shown on page 154 of S.D. 109. In developing this correlation the engineers plotted inflow (or the water available) each year against the outflow (or the water which reached the state line under the routing study conditions) during that same year.⁵ In order to minimize variations attributable to individual years, these values were plotted on a three-year running average. The correlation, thus, shows how much water of a given inflow can be expected to reach the state line under 1947 Conditions. This inflow-outflow relationship serves as a standard by which post Compact water deliveries may be evaluated to ascertain whether or not a quantity of water equivalent to that available under the 1947 Condition has been made available.

⁴S.D. 109, pp. 145-172.

⁵This is an oversimplification. Rather than using the inflow into Alamogordo Reservoir as a component of the total inflow, the Inflow-Outflow Manual uses the outflow from the reservoir. This results in changing the timing of this inflow component slightly and reduces it by the amount of reservoir evaporation losses. It is not, however, significant to understanding the inflow-outflow method, as described above.

As described in the Inflow-Outflow Manual, post Compact deliveries are evaluated each year as follows: (a) the actual inflow into the river during a post Compact year is calculated; (b) the gaged flow at the state line for the same year is obtained; (c) both values are calculated for a three-year running average, ending with the current year; (d) the three-year average inflow is plotted on the inflow-outflow correlation curve to obtain the comparable outflow under the 1947 Condition; and (e) the 1947 Condition average outflow is compared to the recorded average outflow for the post Compact years being considered. In this manner one may ascertain whether the state line flow under consideration is more or less than the amount of water which reached the state line under the 1947 Condition routing study for the same inflow value.

This is the first step in accounting for water deliveries under the Compact. An isolated instance of overdelivery or underdelivery is not particularly significant; natural variations in water availability and use patterns on the river might easily account for a single departure. Only when a pattern of overdeliveries or underdeliveries becomes established does the departure assume significance.⁶ Even after a pattern of departures from the established relationship develops, one final step remains to determine New Mexico's compliance or noncompliance with the Compact's requirements. It must be determined that the departure is caused by man's activities rather than natural causes. Under Article III(a) New Mexico's obligation only extends to departures caused by man's activities; Texas bears the burden of underdeliveries due to increased natural losses.

The foregoing discussion is intended to clarify the difference between the routing study and the inflow-outflow method. The former depicts the performance of

⁶S.D. 109, pp. 149 & 156.

the river under a set of circumstances which did not actually exist on the river during the historic period of record. The latter is a technique or method by which actual deliveries during the post Compact period may be compared to water availability depicted by the routing study.⁷

B. Compact Negotiations and the Report of the Engineering Advisory Committee

The Master's Report⁸ accurately describes the proposals and counterproposals leading up to the agreement to base the Compact upon the 1947 Condition. However, because the 1947 Condition is defined by the Compact in terms of the engineering reports which were performed contemporaneously with the Compact negotiations, it is important to understand how the engineering reports and Compact negotiations fit together.

The phase of Compact negotiations which led to adoption of the Compact began with the May 28, 1947 meeting. At that meeting the Engineering Advisory Committee was constituted under the leadership of Royce T. Tipton and was directed to undertake a program of engineering studies of the Pecos River. The phase of study resulted in the initial "Report of the Engineering Advisory Committee." It was transmitted to the Commission in January of 1948 and was formally presented and discussed at the March 10, 1948 meeting. The initial report consisted of three parts: the Synopsis;⁹ the Report itself;¹⁰ and the Appendix.¹¹ The original

⁷The Master's Report frequently confuses the two, e.g., pp. 47 & 49 where the Master suggests that the Inflow-Outflow Manual gives directions for performing the routing study.

⁸pp. 16-22.

⁹S.D. 109, pp. xxv-xxxiv.

¹⁰S.D. 109, pp. 1-27.

¹¹S.D. 109, pp. 28-72.

report contained a discussion of six river routing, or river operation, studies. The routing studies are presented and briefly discussed in the report itself. The Synopsis is more analytical in nature; it discusses the studies briefly and presents the conclusions the engineers were able to draw from these studies and a comparison of them. The Appendix describes in some detail how the studies were performed and the basis for the various values used in the routings. Among the six original routings were both the "Proposed A" and "1947 Condition" routings.

During the March 1948 meeting, as described in the Master's Report, Texas initially proposed a compact based upon the "Proposed A" routing study. The New Mexico counter-proposal suggested a compact based upon a modified 1947 Condition--one which would allow an anticipated depletion of the groundwater contribution, "base inflow," to the river due to groundwater pumping taking place at that time. The Engineering Advisory Committee was directed to evaluate the New Mexico and Texas proposals, and particularly the effects of current groundwater pumping on base inflow which had not yet made themselves felt, but would do so in future years.

The Committee did so and produced the "Supplement" to the Report of the Engineering Advisory Committee, which is found at pages 133-144, S.D. 109. This report includes three additional river routing studies. The "1947-A Condition" routing study was performed to reflect the New Mexico counter-proposal of March, 1948. The Supplement was available for the Commission's next meeting, on November 8, 1948. It concluded, in part, that then-existing groundwater pumping could ultimately cause the groundwater contribution between Roswell and Artesia to disappear entirely.

At this meeting, on November 11, 1948, Texas

rejected the New Mexico proposal. Subsequently, on November 13, 1948, New Mexico proposed that a compact be based on the "1947 Condition."¹² Texas accepted the proposal with minor agreed modifications. A nine-point agreement resulted.¹³ The first point corresponds to Article III(a) of the Compact and is reproduced at page 20 of the Master's Report.

Following the Commission's November, 1948 meeting, between Thanksgiving and December 3, 1948, both the Engineering Advisory Committee and a Drafting Committee met. The Drafting Committee met and wrote the Compact, based upon the nine-point agreement reached during the November Commission meeting. During that same time the engineers met and drafted the Inflow-Outflow Manual.

The Master's definition of the 1947 Condition has modified the Compact definition of that term to literally remove any reference to the Report of the Engineering Advisory Committee from the definition. The Compact, on the other hand, defined the 1947 Condition exclusively in terms of the Report of the Engineering Advisory Committee. Much of the Master's rationale in disregarding the report appears to be based upon perceived weaknesses in the report. Many of New Mexico's arguments against the Compact's definition of the 1947 Condition are based upon a portion of the Commission's administrative history aimed at correcting certain errors in the report's Inflow-Outflow Manual. All parties agree that the Inflow-Outflow Manual contains certain errors and needs to be revised.

Texas has presented this discussion of the various portions of the Report of the Engineering Advisory Committee to show the role that each played in Compact

¹²Master's Report, p. 20.

¹³S.D. 109, p. 97.

negotiations. While Article II(f) defines the Report of the Engineering Advisory Committee to include the original report, supplement, and Inflow-Outflow Manual, together with the back-up data and minutes of the final Commission meeting, it is apparent that when the original agreement upon the 1947 Condition was reached, as one of the nine points which formed the basis for the Compact, the negotiators from Texas and New Mexico had only the original report to base that agreement upon. It is that original report which defines the 1947 Condition. Flaws in the Inflow-Outflow Manual, which do exist, do not impair the Compact's definition of the 1947 Condition because that definition is found in the original engineering report submitted in March of 1948. The Inflow-Outflow Manual, while included in the Article II(f) definition of the "Report of the Engineering Advisory Committee," is intended for post Compact accounting of water deliveries. That it has some deficiencies is, at least, understandable if one considers the time constraints within which the engineers were working when they put it together.

C. The Administrative History of the Pecos River Commission.

Because at least one of New Mexico's objections to the Master's decision is based upon the administrative history of the Pecos River Commission, a clear understanding of that history is essential. Although the Master's Report does not deal extensively with that administrative history, two of its descriptions of commission action are misleading. At page 27, discussing the July 1957 meeting of the Commission, the Master states that the Commission's Engineering Committee had been restudying the 1947 Condition. At page 44, the Master describes the 1949-1961 period as "twelve years of action without a result." In both instances the Master has failed to recognize the significance of the year 1957 as a turning point in the direction of the engineering studies in which the

Commission was engaged.

While New Mexico's arguments based on administrative history will be addressed on their merits in our Reply Brief, the misimpression left by the Master's Report should be corrected at this stage.

Until 1957 the Commission was not engaged in a restudy of the 1947 Condition or the description of that condition contained in the Report of the Engineering Advisory Committee. After 1957 the Commission, unquestionably, did engage in such a study--producing the Review of Basic Data's routing study describing the condition anew. Prior to 1957, however, the Commission was simply conducting studies suggested by the Inflow-Outflow Manual and attempting to remedy some deficiencies in the manual.

As described in the Master's Report of July 6, 1977,¹⁴ the Inflow-Outflow Manual presents a series of graphs and curves for use in Compact administration. Two of the curves, Plate No. 1 and Plate No. 2,¹⁵ are based upon 37 years of data and are presented for use in Compact administration. Six other curves, Plates No. 5-10,¹⁶ are based upon only 10 years of data and are presented on a tentative basis. With respect to these six curves, the Inflow-Outflow Manual states:

The committee is submitting as part of this report for the above reaches of river the inflow-outflow relationship in the form of graphs for 3-year-successive means for the period 1938 through 1947. While in general the correlation of the points on these graphs is sufficiently good

¹⁴pp. 19-22.

¹⁵S.D. 109, pp. 153 & 154, respectively.

¹⁶S.D. 109, pp. 160-166.

to permit the establishment of correlation curves, yet the committee believes that more years of streamflow record should be available before such curves are established.

S.D. 109, p. 151.

One of the tasks the Commission was engaged in prior to 1957 was the collection of additional data and the refinement of these curves, as suggested by the manual.

The second task occupying the Commission during this period was the correction of procedures established by the Inflow-Outflow Manual for the calculation of flood inflow in the Commission's annual accounting of deliveries. The Inflow-Outflow Manual simply made some mistakes in providing the directions for performing this annual computation. The clearest of these is the suggestion that the flood inflow entering the river below Alamagordo Dam and above the Acme gage is not included in the annual flood inflow computation.¹⁷ The major task which occupied the Commission's engineers prior to 1957 was that of improving the flood inflow computation techniques provided in the manual.¹⁸

In 1957, however, the direction of the Commission's study changed. As described in the Master's Report,¹⁹

¹⁷S.D. 109, p. 155. Similarly, because this flood inflow is omitted from the manual's instructions, specific directions for the computation of this flood inflow are lacking.

¹⁸This is clearly documented by reference to the Minutes of the Commission's Engineering Advisory Committee, Stipulated Ex. 2: p. 2, Min. of Oct. 24-25, 1956; p. 3, Rept. 10/25/56. See, also, Stip. Ex. 6, Min. of the Inflow-Outflow Subcommittee, p. 1 of Rept. following Min. of 1/18/57 Meeting, and Tex. Ex. 14, p. 11.

¹⁹pp. 27-28.

the engineers reported that they were unable to reach a conclusion in their current studies and requested the advice of the legal committee concerning their ability to expand the scope of their study. The legal committee reported their opinion that Plates Nos. 1 and 2 of the Inflow-Outflow Manual could be modified, and a special committee was formed to restudy the 1947 Condition.

Thus, contrary to the implication of the Master's Report, prior to 1957 the Commission's efforts at engineering refinements were directed at the Inflow-Outflow Manual and making administrative computations required for annual accounting of deliveries. It was only during the 1957-1961 period that the Commission's engineers engaged in refinements of the description of the 1947 Condition contained in the Report of the Engineering Advisory Committee. This distinction assumes significance both in evaluating the Master's objections to the original report and in the consideration of New Mexico's objections to the Master's Report based upon the administrative history of the Commission.

III. SUMMARY OF ARGUMENT

The question before the Court is the meaning of the term "1947 Condition" used in Article III(a) of the Pecos River Compact. The Special Master has defined the 1947 Condition as:

that situation in the Pecos River Basin which produced in New Mexico the man-made dep'tions resulting from the stage of development existing at the beginning of the year 1947 and from the augmented Fort Sumner and Carlsbad acreage.

The Pecos River Compact defines the 1947 Condition as:

that situation on the Pecos River Basin as described and defined in the Report of the

Engineering Advisory Committee. In determining any question of fact hereafter arising as to such situation, reference shall be made to, and decisions shall be based on, such report.

The drafters of the Compact defined the 1947 Condition exclusively in terms of the Report of the Engineering Advisory Committee. The Master has entirely removed that report from his definition of the 1947 Condition. This revision of the Compact not only changes the terms of the interstate agreement reflected by the Compact, but also threatens the future viability of the Compact.

IV. ARGUMENT AND AUTHORITIES

A. The "Texas Position"

As recognized by the Master's Report, the question before this Court is the meaning of the term "1947 Condition" in the Pecos River Compact. It is Texas' position that the term is expressly defined by the Compact and that the departure from this definition suggested by the Master's Report is impermissible. Article II(g) of the Compact states:

The term "1947 condition" means that situation in the Pecos River Basin as described and defined in the Report of the Engineering Advisory Committee. In determining any question of fact hereafter arising as to such situation, reference shall be made to, and decisions shall be based on, such report.

The Report of the Engineering Advisory Committee is, obviously, much broader in scope than simply a definition of the 1947 Condition. It additionally examines several other conditions, provides interpretive comments based upon all the routing studies involved, and provides a suggested method for

performing administrative computations after the Compact is effective. The portion of the report which describes and defines the 1947 Condition is the 1947 Condition routing, or river operation, study.

The Master's Report misstates the Texas position on the 1947 Condition definition. At pages 2 and 42 the Master states that Texas contends the condition is defined by the "Summary of Operations 1947"--attached to his report as Appendix A. This is an oversimplification. The summary of operations is simply that; it is an annual summary of the results of the 1947 Condition routing study. The routing study involves more than simply the annual summary. It was performed on a monthly basis. The routing reflects the values developed by the Engineering Advisory Committee to depict all of the losses and gains to the river, man-made and natural, existing under the 1947 Condition. While the annual summary of operations reflects all these values and reflects the results of the monthly routing, standing alone it is incomplete. The 1947 Condition is defined by the entire routing study, including everything that went into the compilation of the annual summary of operations, i.e., the monthly computations and the values developed for the gains and losses existing under the 1947 Condition routing.

The Article II(g) definition of the 1947 Condition is definite and precise. It ties the 1947 Condition to the Report of the Engineering Advisory Committee and allows no departure from, or modification of, that definition.

B. The Master's Treatment of Texas' Position

The Master notes, and Texas admits, that the Article II(g) definition results in a "1947 Condition" which is artificial. This is unquestionably true, especially in light of the fact that the engineers knowingly included in the 1947 Condition acreage for the Ft. Sumner and

Carlsbad irrigation projects far in excess of the amount actually irrigated at the time and far in excess of the amount which had ever been irrigated at those projects.²⁰ Values for other gains and losses reflected by the 1947 Condition routing study were based upon various estimates, assumptions, and calculations. Actual recorded values from streamflow records or diversion records simply were not available in all instances, nor are they now available. It is physically impossible to measure all the gains and losses involved; several of the gains and losses may be occurring simultaneously in the same stretch of the river. For this reason the Engineering Advisory Committee was forced to use estimates, assumptions, and computations to develop the values reflected in the routing study. Significantly, the original Engineering Advisory Committee did check the results produced by the 1947 Condition routing study against actual state line gage flow records for the years 1940-1946. Because the difference between calculated and observed results for the period were only minor, the Engineering Advisory Committee concluded, "The check validates the many estimates which had to be made in the calculation and use of the derived data."²¹

While the 1947 Condition routing study presents an artificial picture of the condition of the Pecos River during the 1940-46 period, it was undoubtedly intended to depict conditions on the river as they existed at that time.²² It is perhaps on this basis that the Master

²⁰S.D. 109, pp. 52, 55, 70 and 113; Tr. 895-896.

²¹S.D. 109, p. 72. It is noteworthy that New Mexico witnesses now consider this check on results as either meaningless or an indication of errors contained in the original 1947 Condition routing, while Texas witnesses consider it a valid test of the reliability of the 1947 Condition routing. (Tr. 850-851 & 955)

²²e.g., S.D. 109, p. 113.

concludes the 1947 Condition must refer to a situation which is a "tangible reality," not "synthetic imagery." The Compact, however, was not written to allow the construction preferred by the Master. It states that the "situation" is defined by the Report of the Engineering Advisory Committee. It further emphasizes the point by mandating that, "In determining any question of fact hereafter arising *as to such situation*, reference shall be made to, and decisions shall be based on, such report."²³

The Master next criticizes Texas' adherence to the Article II(g) definition of the 1947 Condition because it results in an immutable, inflexible definition of that condition. Here the Master perceives four points which argue against the immutability established by the Article II(g) definition.

First, the Master states that Article VI(a) recognizes the use of "additional data hereafter accumulated."²⁴ This is true; Article VI(a) provides:

The Report of the Engineering Advisory Committee, supplemented by additional data hereafter accumulated, shall be used by the Commission *in making administrative determinations.*

(Emphasis added)

The critical phrase is "in making administrative determinations." An administrative determination does not involve a determination of what the 1947 Condition is. Rather, administrative determinations involve ascertaining whether stateline deliveries since the Compact became effective have been in quantities equivalent to those available under the 1947 Condition,

²³Art. II(g) (emphasis added).

²⁴Master's Report, p. 36.

whether water has been salvaged, or whether stateline deliveries have been depleted by man's activities. Obviously more recent data must be accumulated and utilized to make these administrative determinations because they all involve post Compact events. This, however, has nothing to do with redefining the 1947 Condition.

Second, the Master suggests that the original engineers recognized the need for "corrections and refinements" and this provides a basis for disregarding the inflexibility of the Article II(g) definition.²⁵ The passage referred to by the Master's Report is set forth below:

In the routing studies made by the engineering advisory committee such items as consumptive use and spring flow were taken as constants. The commission should make studies of such items in order to determine the extent to which they may fluctuate from year to year in accordance with the variation of meteorological factors which affect them. In addition to refinement of such basic data, it may be that refinement of estimating technique can be made of other data such as estimates of flood flow used in the routing studies, which are also used herein to develop inflow-outflow relationships. If this is done, necessarily there must be made a refinement in the inflow-outflow correlations comparable to the refinement in the estimates of the basic data. The commission also should continually check the correlations which are submitted herewith by plotting on the graphs and curves additional streamflow data as they are gathered from year to year. It is probable that some refinement can be made in the correlations before any major change in the depletion of water or the salvage of water in the

²⁵Id.

basin takes place, because such processes undoubtedly will be slow.

S.D. 109, pp. 150-51

This language comes from the Inflow-Outflow Manual, from the section entitled, "Applicability of the Inflow-Outflow Method to the Administration of the Pecos River Compact." It is discussing improvements or refinements which might be possible in the method of administrative accounting suggested in the manual. Whether it is directed at the six tentatively submitted inflow-outflow relationships only, or includes Plates No. 1 and 2, is unclear. The closest this language comes to suggesting modification of the 1947 Condition routing study is its suggestion that the inflow-outflow relationships provided by the manual should be modified to correspond with an improved method of estimating flood inflow which might be developed. That the inflow-outflow relationships might be changed is not contested--the Compact expressly provides that the entire inflow-outflow method of accounting might be replaced if a better or simpler method is developed.²⁶ This discussion of improving the inflow-outflow relationships and the inflow-outflow method, however, does not detract from the Article II(g) definition of the 1947 Condition. As discussed above, it is not the Inflow-Outflow Manual which defines the 1947 Condition. That condition is defined by the original engineer's report, available in March, 1948, when the negotiators agreed upon the "1947 Condition" as a portion of the nine point agreement and as a basis for Compact. It, not the Inflow-Outflow Manual, was available when the Commission's drafting committee defined the "1947 Condition" in Article II(g).

The third factor leading the Master to conclude that the Article II(g) definition must be given a more flexible

²⁶Art. VI(c).

interpretation is Texas' agreement to use the Review of Basic Data to account for deliveries for the 1950-1961 period.²⁷ That the Texas commissioner took such action is uncontested. The significance of the action is, however, questionable. At best this constitutes "fact finding" by the Pecos River Commission. Such findings are not conclusive; under the Compact's express terms they constitute only prima facie evidence of the facts found.²⁸ Moreover, the Master has found that this action does not constitute administrative history which is meaningful in construction of the 1947 Condition.²⁹

The fourth, and probably decisive, factor in the Master's rejection of the Article II(g) definition of the 1947 Condition is his conclusion that the original 1947 Condition routing study contains mistakes and omissions, and is generally unworkable.³⁰ The Master has, however, overstated the difficulties involved with the original routing study. In hydrology, as in other technical fields, the state of the art can change significantly in ten years. A major change which occurred since the 1947 engineering study was the advent of computers; these were available for use in 1957 when the Review of Basic Data was undertaken. For this reason and others the Review of Basic Data is, in several respects, a more sophisticated routing study than the one contained in the original engineering report. Nevertheless, evidence introduced before the Master confirmed the validity and overall accuracy of the original routing study. As discussed above, the original engineers checked their work and found it

²⁷Master's Report, p. 36.

²⁸Art. V(f).

²⁹Master's Report, p. 44.

³⁰Id, at p. 36.

valid.³¹ Texas witness, Mr. Frank Bell, former Regional Chief of Surface Water for the Rock Mountain Area of the U.S. Geological Survey,³² testified that the methods used by the original engineers to check their results were valid, and that the check showed a very close correlation to historic data, validating the study.³³ Besides analyzing the original check on results, Mr. Bell performed his own independent check on the results of the original 1947 Condition river routing study. His independent work also confirmed the accuracy of the original study.³⁴ Moreover, after a detailed step-by-step analysis of the original 1947 Condition routing study Mr. Bell testified that, with two minor exceptions, the assumptions and methods used in that study were reasonable.³⁵ Thus, while the 1947 Condition routing study contained in the original engineering report is something short of the perfect engineering model of the river, it is essentially sound and workable.

None of the four reasons advanced by the Master for disregarding the Article II(g) definition of the 1947 Condition provide a significant or adequate basis for disregarding the clear mandate of Article II(g) that, "In determining any question of fact hereafter arising as to such situation, reference shall be made to, and decisions shall be based on, such report [the Report of the Engineering Advisory Committee]."

In response to prior arguments by New Mexico that the original routing study contains mistakes which

³¹S.D. 109, p. 72.

³²Tr. 358.

³³Tr. 578-79.

³⁴Tr. 636-38.

³⁵Tr. 580.

must be corrected, Texas has stated that the Compact's definition of the 1947 Condition must stand. While the evidence demonstrates the existence of no serious errors in the original routing study, it does show the existence of some imperfections and short-cuts in that study. To the extent such imperfections exist, both states are bound by them. Article II(g) demonstrates a clear intent to establish a definite ascertainable definition for the 1947 Condition. The Compact's drafters were informed that the engineering study was partially based on estimates and derived data. They were also informed that the validity and overall accuracy of the study was good.³⁶ The Article II(g) definition reflects a clear decision that the importance of a definite standard by which New Mexico's deliveries might be gaged outweighed the need to correct any minor errors which might exist in that standard.

As recognized by this Court in *Rhode Island v. Massachusetts*, 45 U.S. 591, 635 (1845), "No treaty has been held void, on the ground of misapprehension of the facts, by either or both of the parties." To the extent Article II(g) incorporates shortcomings inherent in the original routing study into its definition of the 1947 Condition, both New Mexico and Texas are bound by them.

Two additional portions of the Master's Report must be addressed. At page 38 the Master "mentions in passing" a problem which he perceives may exist at a later stage of this case. Once the standard for deliveries under the 1947 Condition has been established, actual deliveries during the post Compact period will be compared against that standard. If the actual deliveries are less than those required by the 1947 Condition standard, a subsequent determination of whether the departure is due to man's activities in New Mexico must

³⁶S.D. 109, p. 72.

be made. In this connection, the Master observes:

If the base contains errors which affect the departure, the question is whether the departure is the result of an error in the base or man's activities. Although man's activities are not the present concern, the Master believes that acceptance of an error does not convert that error into an activity of man.

Master's Report, p. 38.

Here, the Master again fails to heed the mandate of Article II(g). Under the Article II(g) definition the 1947 Condition is that situation shown in the original Report of the Engineering Advisory Committee. The Master assumes that the report is attempting to depict some other "situation" and that the other "situation" is in reality the 1947 Condition. Thus, he builds in a new obstruction to delivery accounting. He would require a determination of the portion of the departure due to discrepancies between the idealized "situation" and the engineering model which represents it.

Article II(g) was drafted precisely to avoid this sort of difficulty. If the standard by which deliveries are gaged is not a firm, fixed standard, but is rather a shadow of some ideal "situation," the states will never be able to account for deliveries with confidence. There will always be a possibility that the engineering model reflecting the standard might be further refined to come closer to that ideal "situation." Article II(g) declares, however, that there is no other ideal "situation"; the engineering model and the "situation" are the same. The Master's decision takes a moderately complex Compact and, rather than accepting the simple direct solution provided by the Compact, engrafts a further complexity upon it.

In his Supplemental Report the Master again

addresses Texas' position that the 1947 Condition is defined by the Report of the Engineering Advisory Committee. He states that 30 years of controversy at the Commission level demonstrate the weakness of the Texas position--that the Commission engineers have tried to make an accounting on that basis and found it impossible. On this basis the Master concludes that acceptance of the Texas view of the 1947 Condition would render the Compact incapable of performance. The Master is completely wrong. His statements demonstrate a fundamental misunderstanding of the Commission's administrative history and of the relationship between the 1947 Condition routing study and the Inflow-Outflow Manual.

The difficulties with performing an accounting of deliveries using the original 1947 Condition routing study and the Inflow-Outflow Manual arise from the Inflow-Outflow Manual. The 30 years of administrative history do not demonstrate that the Compact is unworkable if one adheres to the literal terms of Article II(g). From 1950 until 1957 the Commission's engineers were engaged in the task of correcting and improving the Inflow-Outflow Manual. In 1957, when the necessary corrections to the Inflow-Outflow Manual's procedures had been proposed and an accounting under those procedures made,³⁷ New Mexico suddenly proposed expanding the scope of the engineering work to include a restudy of the 1947 Condition. Thus, the 1950-57 period directly supports Texas' position on the 1947 Condition. From 1957

³⁷An accounting of deliveries through the year 1955 was submitted with the April 1, 1957, Report of the Inflow-Outflow Subcommittee. A memorandum dated January, 1957, and minutes of the January 18, 1957, meeting of that subcommittee clearly show that the subcommittee was working on improving the Inflow-Outflow Manual. See Stipulated Exhibit 6, "Minutes and Reports of the Inflow-Outflow Subcommittee of the Engineering Advisory Committee to the Pecos River Commission."

through 1961 the Commission engaged in that restudy and accomplished it. Since that time the Commission has done virtually nothing. It is not Texas' view of the 1947 Condition which leads to difficulty enforcing the Compact; it is allowing the states the flexibility of redefining the condition to achieve a perfect model of some ideal "situation" that causes problems. If New Mexico can see a delivery deficit upcoming under the current model depicting the 1947 Condition, she will obviously urge that further refinements must be made in the model to allow it to more "accurately" depict the ideal "situation."

The Master concludes his treatment of Texas' objections in the Supplemental Report by stating:

Texas concedes that the Inflow-Outflow Manual must be changed. Any change in that Manual requires a change in the routing study.

Master's Report, p. 49.

This is simply wrong. A change in the accounting method by which compliance with a given standard is judged does not require that the standard itself be changed. Perhaps the Master's failure to grasp the distinction between the standard and the method, by which compliance with that standard is gaged accounts for his failure to appreciate the significance of the period 1950-1957 in the Commission's administrative history. In any case, it must be recognized that the lack of a firm, fixed standard by which deliveries may be judged poses a far greater threat to the viability of the Compact than minor technical deficiencies in that standard or than a flexible standard which is subject to revision whenever the time for accounting of deliveries nears.

V. CONCLUSION

Considering the Master's treatment of the 1947

Condition question as a whole, it is apparent that the Master is attempting to reach an equitable solution to this interstate controversy. He has told both Texas and New Mexico that their long-held views of the 1947 Condition are incorrect. Instead he has chosen a rather indefinite middle ground as the solution to the 1947 Condition question.

While such action would unquestionably be appropriate in a suit for an equitable apportionment of the waters of the Pecos River, this is not such a suit. This is an action to enforce an interstate compact. The balancing of equities and the compromising of extreme positions has already taken place--in the context of the interstate negotiations leading up to the Pecos River Compact.

As a result of the negotiations, New Mexico agreed to define its obligation to deliver water to Texas in terms of the "1947 Condition," and further agreed to define that condition by means of a river routing study in the possession of all parties at the time. This was not an unfavorable arrangement for New Mexico. The study depicted the river's performance with all dams and reservoirs in existence at the time and operated them to catch all available water for the benefit of irrigation then taking place in New Mexico. Additionally, the study provided New Mexico some "padding" for the delivery obligation in the form of stipulated acreage for the Ft. Sumner and Carlsbad irrigation projects in excess of the acreage which had been historically irrigated. This is likely much better treatment than New Mexico would have received in the equitable apportionment suit Texas was then threatening to bring. Many of the rights included within the 1947 Condition were junior to water rights then existing in Texas. Under the doctrine of prior appropriation, junior New Mexico water rights might not have received such favorable treatment.

The Compact negotiators anticipated the availability of salvaged water to satisfy both existing uses and delivery requirements imposed by the Compact.³⁸ Unfortunately for both states, the river's flow has not increased appreciably as a result of the major phreatophyte (salt cedar) eradication effort which has since taken place. Nevertheless, the Compact was agreed upon by the negotiators, passed by both state legislatures, and ratified by Congress. The time for compromise solutions and balancing equities has passed. The Compact's literal terms must now be enforced. States will lose faith in the viability of compacts as a means of resolving interstate controversies if they cannot obtain enforcement of a compact's express terms from the courts. The courts should not substitute their own retrospective equitable compromises for the one previously agreed upon by the states. States should receive the benefits, and suffer the detriments, of their own compact bargains.

VI. RELIEF REQUESTED

The State of Texas respectfully urges this Court to reject the Master's Report insofar as it defines the 1947 Condition as something other than the 1947 Condition routing study contained in the original Report of the Engineering Advisory Committee, and to remand the cause to the Master for an accounting of deliveries under the standard provided by that routing study and a determination of whether any delivery deficiencies are due to man's activities in New Mexico.

Respectfully submitted,

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³⁸See Testimony of New Mexico negotiator Erickson, Tr. 1005; cf, S.D. 109, pp. xv & 125.

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PROOF OF SERVICE

I, DOUGLAS G. CAROOM, Assistant Attorney General of the State of Texas, one of the Attorneys for the Plaintiff herein, and a member of the Bar of the Supreme Court of the United States, hereby certify that on the 28th day of November, 1979, I served copies by First Class Mail, Postage Prepaid, to counsel for the State of New Mexico and the United States.

DOUGLAS G. CAROOM

No. 65, Original

Supreme Court, U. S.

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IN THE
Supreme Court of the United States

October Term, 1975

STATE OF TEXAS, *Plaintiff*

v.

STATE OF NEW MEXICO, *Defendant*

UNITED STATES OF AMERICA, *Intervenor*

NEW MEXICO'S REPLY TO TEXAS'S OBJECTION

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IN THE
Supreme Court of the United States

October Term, 1975

No. 65, Original

STATE OF TEXAS, *Plaintiff*
v.
STATE OF NEW MEXICO, *Defendant*
UNITED STATES OF AMERICA, *Intervenor*

NEW MEXICO'S REPLY TO TEXAS'S OBJECTION

STATEMENT OF THE CASE

The discussion of engineering methods and techniques in Texas's statement of the case provides a useful explanation of the 1947 condition routing study and the inflow-outflow relationship developed from that study. There are three matters, however, that should be clarified.

In describing how the routing study was designed to illustrate for each year of the period of study how the river would have responded if the 1947 condition stage of development existed during those years, Texas stated that "(r)eservoirs, uses, losses, and groundwater contribution all reflect the 1947 condition,

while the surface water supply each year depicts that which was actually available." (Texas's Objections, p. 4). The statement is not strictly correct. Only the computed flood inflows below Alamogordo Reservoir purport to depict the surface water supply actually available. In preparing the routing study, the surface water supply flowing into Alamogordo Reservoir was adjusted to reflect 1947 condition depletions rather than historic depletions above Alamogordo Reservoir; that part of the surface water supply attributable to ground water contributions was adjusted to reflect the 1947 condition of such contributions.

A related problem is the statement that in developing the correlation shown in Plate No. 2 of S.D. 109 (p. 154), the engineers plotted the inflow each year (or the water available) against the outflow. (*Ibid.*, p. 5). In fact, what was plotted was an "index" of the inflow instead of the total water available. That index inflow includes neither the ground water contributions to the surface water supply nor the ground water available and being taken from underground sources.

Because the index inflow does not include groundwater sources, it follows that if the groundwater contribution to the surface water supply (frequently referred to as "base inflow") becomes less than it was in 1947 as a result of the continuation of the ground withdrawals, as the Report of the Engineering Advisory Committee projected it would, a negative departure from the inflow-outflow relationship established by the 1947 condition routing study would be indicated. This negative departure would not be the result of new depletions by man's activities in New Mexico.

Texas implies, in this regard, that New Mexico proposed that she be allowed the projected complete depletion of the base inflow to the river that the Engineering Advisory Committee projected would ultimately result from the continuation of

existing ground water pumping in New Mexico and that the adoption of the 1947 condition routing study as a basis for the compact instead of the 1947-A condition routing study, which reflected the complete depletion of the base inflow, constituted a rejection of the New Mexico proposal. This implication is not supported by the record. In fact, New Mexico proposed the use of the 1947 condition routing study, recognizing that that study approximated what the situation on the river would be with the base inflow entirely depleted and the water salvage that was projected by the engineers effected. (See, New Mexico's Objections, pp. 66-80).

Texas also states that in evaluating post-compact deliveries each year the actual inflow into the river during the post-compact year is calculated. It is important to note that in evaluating deliveries it is the *index* of the actual inflow that is calculated to enter Plate No. 2.

Finally, Texas argues that she bears alone "the burden of underdeliveries due to increased natural losses." (Texas's Objections, p. 6). In fact, both states must bear the burden of any increased natural loss after 1947. While such losses are not chargeable as increased depletion due to man's activities, the losses would diminish the supply available to the surface water diversion works existing in New Mexico under the 1947 condition, thus causing New Mexico to share the burden of increased natural losses.

SUMMARY OF ARGUMENT

Texas's objection to the Master's finding respecting the nature of the 1947 condition is essentially a statement of her recently acquired view that the 1947 condition is not a stage of development in the Pecos River Basin in 1947, but rather is an erroneous mathematical description of that condition. Until

Texas's delegate to the Pecos River commission, who was a stranger to the Pecos River Compact until his appointment in 1968, attempted to unilaterally repudiate nearly twenty years of mutually acceptable compact administration, the actions of Texas's representatives and engineering advisors provided unequivocal support for the Master's opinion that the 1947 condition is reality, with two exceptions designed to protect federal interests. Texas's current position is refuted by the express terms of the compact, by Mr. Tipton's contemporaneous explanation of the compact, and by the administrative actions of the representatives of both states.

Texas asserts that the erroneous description of the 1947 condition in the initial engineering report constitutes a mutual mistake of fact to which New Mexico is bound. Her understanding of the law, however, does not survive analysis, and her belief that the erroneous data are intrinsically the basis of the compact renders queer and irrational the behavior of the representatives of both states who struggled for years to make the compact work. There is no mistake of fact. The people who negotiated and urged the adoption of the compact were the same people who assumed the responsibility for its administration. Their construction of the meaning of the 1947 condition complements the Master's finding. Texas cannot now unilaterally repudiate historical fact.

Stripped of its rhetoric, Texas's argument is an expression of regret over the fact that the 1947 condition is the stage of development in the Pecos River Basin in 1947 instead of a mistaken illustration of that condition that vitiates the bargain agreed upon.

ARGUMENT

POINT I: The 1947 condition is an objective stage of development existing in the Pecos River Basin in 1947.

Texas's objection to the Master's report goes to the essence of his finding on the basic question which was to have been decided as a result of the first segment of trial — whether the 1947 condition is an artificial condition existing intrinsically as the "Summary of Operations — 1947" in the initial Report of the Engineering Advisors or whether it is the situation of physical circumstances existing in the Pecos River Basin in 1947. While the Master listed his finding as the first of three "conclusions" on the 1947 condition (Report, p. 41), his "conclusion" is a conclusion only in the sense that it is his final decision on a question of fact.

There is some question as to what weight the Court will give a Master's findings. Although Supreme Court Rule 9(b) would appear to incorporate the "clearly erroneous" standard embodied in Rule 53 (e) (2) of the Rules of Civil Procedure and used by federal district courts in dealing with exceptions to reports of special masters, decisions in original actions between states indicate that it does not. The reason for the difference apparently lies in the delicacy and importance of conflicts between states. Justice Douglas, dissenting on other grounds in *Mississippi v. Arkansas*, 415 U.S. 289 (1974), stated:

Heretofore the Court has not considered itself limited in its review of its Masters by the "clearly erroneous" test. We said in *United States v. Utah*, 283 U.S. 64, . . . that the Master's judgment "accords with the conclusions we make from our own independent examination of the record." (at 296-97).

In other original actions between states, the Court's review of

the findings of a Special Master to which exceptions have been taken turned on whether a preponderance of the evidence supported the Master's findings. See, *Kansas v. Missouri*, 322 U.S. 213 (1944); *Nebraska v. Wyoming*, 325 U.S. 589 (1945); *Washington v. Oregon*, 297 U.S. 517 (1936). A seemingly different form of deference was accorded in two other cases. In *Kansas v. Missouri*, 322 U.S. 213 (1944), it was stated, that "(t)he Master saw and heard the witnesses. . . . We find no basis in the record for any conclusion that he performed his task with other than fair, disinterested, painstaking effort and attitude." (at 231). And in *Louisiana v. Mississippi*, 282 U.S. 458 (1931), the Court indicated that deference would be accorded the Master at least to the extent that there were issues of credibility. In the case at bar the important point is that the deference accorded the Master's "conclusion" on the 1947 condition should be the deference accorded a master's findings.

New Mexico contends that the 1947 condition contemplated by the negotiators was the then "present situation on the river," with two exceptions designed to accommodate federal reclamation interests to encourage the consent of Congress, viz., water was to have been routed through the Carlsbad Irrigation Project as though it had been developed to 25,055 acres and through the Ft. Sumner Project as though it had been developed to 6,500 acres. (S.D. 109, p. 10, *see also*, Tipton's explanation, *id.* at 113). In all other respects the 1947 condition was understood to have been the physical reality of the river, i.e., a set of actual circumstances sought to have been described with reasonable accuracy in the "Summary of Operations—1947" contained in the Report of the Engineering Advisory Committee and depicted in the Inflow-Outflow Manual's various plates, which were designed to provide a base against which post-1947 departures could have been measured. In New Mexico's view, the description of the 1947 condition found in S.D. 109 and initially thought sufficient for use in the commencement of compact

administration was just that, i.e., a *description* of river conditions. This description was an approximation of the river conditions in 1947 and is alterable to more closely define the condition as hydrological data and engineering techniques warrant.

Texas maintains that the 1947 condition in S.D. 109 defines nothing, but rather is intrinsically the basis of the compact. Texas contends that the 1947 condition is not an initial mathematical approximation of the circumstances of the river; rather, it was *created* to apportion the waters of the Pecos River. According to Texas, on the seventh day the engineering advisors rested.

To support its position Texas urges that "(t)he drafters of the Compact defined the 1947 Condition exclusively in terms the Report of the Engineering Advisory Committee." (Objections to the Report of the Special Master on the Obligation of New Mexico to Texas under the Pecos River Compact, p. 14, hereinafter referred to as Texas's Objections). Texas's position is refuted by the terms of the compact itself, by its explanation by Mr. Tipton, and by the contemporary administrative actions of the representatives of both states.

Compact Provisions

Basically, Texas argues that:

The Article II(g) definition of the 1947 Condition is definite and precise. It ties the 1947 Condition to the Report of the Engineering Advisory Committee and allows no departure from, or modification of, that definition. (Texas's Objection, p. 15).

Article II(g) reads:

The term '1947 condition' means that situation as described and defined in the Report of the Engineering Advisory Committee. In determining any question of

fact hereafter arising as to such situation, reference shall be made to, and decisions shall be based on, such report.

According to Texas the language of the article explicitly makes the 1948 Report of the Engineering Advisory Committee the 1947 condition, thus implicitly prohibiting any revision to what Texas continually refers to as an unalterable "definition."

New Mexico agrees that the answer to the question before the Court can be discerned from the language of II(g), but, as did the Master, we attribute a different significance to those words. The article does not say: "The 1947 condition" is the description contained in the Report of the Engineering Advisory Committee." The words "term," "situation," "as," and "described" have syntactical significance. The "1947 condition" is a term or name for something its description is not. A situation exists; a term only names it. The use of the word "as" complements this distinction by indicating that the description was understood to be a likeness — to paraphrase: 'The term '1947 condition' means that situation on the Pecos River the likeness of which is described and defined in the Report of the Engineering Advisory Committee.' Finally, a "description" is a representation of a reality and is not itself that reality. The use of all these terms makes it impossible to read Article II(g) as Texas does as a statement of absolute identity between the description of the 1947 condition and the condition itself.

Read in *pari materia* with Art. II(g), other compact articles support the Master's reading of Art. II(g). Article V(d) gives the Pecos River Commission the power to:

4. Collect, analyze, correlate, preserve and report on data as to stream flows, storage, diversions, salvage and use of the waters of the Pecos River. . .
5. Make findings as to any change in depletion by man's activities in New Mexico;

6. Make findings as to the deliveries of water at the New Mexico-Texas state line;
12. Perform all functions required of it by this Compact and do all things necessary, proper, or convenient in the performance of its duties hereunder. . . .

The power enumerated in paragraph 5 cannot be exercised without the most accurate definition of the 1947 condition possible. Otherwise the task of isolating departures due to man's activities from gross departures indicated by a relatively inaccurate 1947 condition standard would become unnecessarily complex because of the effect of the initial inaccuracy on the indicated gross departures.

Tipton's Explanation

Tipton's explanation of the compact also supports the Master. At the final negotiation meeting on December 3, 1948, he explained:

In my opinion it would have been very unwise for the commission to have set out in this compact what might be called a schedule. It would have been unwise for several reasons. The commission may devise, as time goes on, a better means to determine this (the amount of water Texas would be entitled to receive under paragraph (a) of article III) than by the inflow-outflow method. *It may perfect more nearly the curves which appear in the engineering advisory committee report.* We are having difficulty now in regard to one compact which involves three States, one of them being the State of Texas, where we are trying to change the schedule without changing rights and obligations. It appears that we will have to go to the legislature to change the schedule. The way the Pecos compact is written, the commission has full authority to change the method, or to perfect the technique, so long as

what is done by the commission is something directed at the determination of the obligation under III(a). (S.D. 109, p. 117, emphasis added).

Both states approved the compact subject to the Tipton explanation. (S.D. 109, pp. 114 and 119). Perfection of the curves could only mean making them a more accurate tool for detecting departures from the 1947 condition. Texas admits that a change in the curves could only result from a change in the underlying analysis of factors which made up the routing study. (Tr. 740-742). Texas also concedes that the curves represent the values found in the 1947 river operation study. (Texas's Brief on the 1947 Condition, p. 9). A change in the curve of Plate No. 2, for instance, could only result from a change in the river operation study. Tipton explained to the compact commission that the administrative agency created by the compact would have authority to do both. The compact was adopted subject to that explanation, and Tipton's explanation supports New Mexico's reading of Articles II(g), V(d), and III(a).

Mr. Tipton also made it clear that with two exceptions the description of the 1947 condition was intended to represent conditions on the river as they actually existed in 1947:

(The) '1947 condition' relates to a condition on the stream and does not relate to the water supply that occurred in the year 1947. There may be some confusion about that. There were certain conditions that existed on the river, such as the diversion requirements of the Carlsbad project, which the engineering advisory committee assumed; the salt cedar consumption; the reservoir capacities that existed in 1947; the operation of the Fort Sumner project up to 6,500 acres; *and the operation of all other projects on the stream as they*

*actually existed in 1947. S.D. 109, p. 113, emphasis added).*¹

Administrative History

Texas contends that the 1947 condition inflow-outflow relationship as depicted by Plate No. 2 of S.D. 109 is immutable and to support this contention argues that from 1950 until 1957 the commission's engineers were engaged in correcting and improving the Inflow-Outflow Manual and that it was not until 1957 that the scope of the engineering work was expanded to include a re-study of the 1947 condition. (Texas's Objections, p. 12). This argument is not supported by the record.

Nearly all of the representatives of the states who participated in the negotiation of the compact were involved in its post-ratification administration. At the outset of administration in 1949 both states adopted the Tipton view as to the mutability of the description of the 1947 condition.

The process of administrative cooperation began at the second meeting of the full Pecos River Commission on December 9 and 10, 1949. Speaking for the Program and Budget Committee, John Erickson recommended that the commission "determine more accurately the '1947 condition' as defined in the compact by studying and investigating the items recommended in the Inflow-Outflow Manual directed toward a more

1. In its objections Texas states: "The Master notes, and Texas admits, that the Article II(g) definition results in a '1947 condition' which is artificial." (p. 15). We are unable to find anything in the record indicating that the Master has so noted. On the contrary, the Master has stated that he "is convinced that 'situation' as used in the compact refers to tangible reality, not synthetic imagery. The artificiality of the routing study does not change the compact meaning." (p. 36).

accurate determination of the inflow-outflow relationships." (S.D. 109, p. 150; Stip. Ex. 4, Minutes, PRC, December 9, 1949, p. 8).²

It was clear to the committee that the items proposed to be studied involved the necessary relationship between post-1947 inflow-outflow computations and the 1947 condition against which they would be assessed. To consider changing one meant considering changing the other. The proposal itself was directed to the " '1947 condition' as defined in the compact. . . ." Both states agreed to the proposal, and it was adopted by the commission. From the outset — and without any knowledge of which way a new description would cut — both states agreed that the description of the 1947 condition appearing in the initial engineering reports was a tool that should be refined and sharpened to reflect as accurately as possible the immutable principle of the 1947 condition on the river.

In a hint of more difficult days to come, the Engineering Advisory Committee did report that for the period from 1947 to 1948 the inflow for the reach of the river between Alamo-gordo Dam and the state line fell below the lowest limit in S.D. 109's Plate No. 2 so that the corresponding outflow

2. Stipulated Exhibit No. 4 contains the minutes of the Pecos River Commission. These minutes, commencing with the October 25, 1956 meeting, are numbered serially in the upper right hand corner of the page. Citations to the minutes commencing with the October 25, 1956 meeting include the date of the meeting and the number appearing at the upper right hand of the page, e.g., October 25, 1956, Minutes, PRC, p. 163. The minutes prior to the October 25, 1956 meeting are either unnumbered or are consecutively numbered within the particular set of minutes. Citations to the minutes prior to the October 25, 1956 minutes include the date of the meeting and the consecutive number of that particular set of minutes, e.g., February 18, 1956, Minutes PRC, p. 3, where page 3 is the third page of those minutes.

couldn't be computed or compared to what the original studies indicated the 1947 condition delivery should have been. (Stip. Ex. 2, Minutes, EAC, January 16, 1951, p. 10). Independent of the problem of accuracy, the Engineering Advisory Committee's original report on the 1947 condition, which is carried over into Plate No. 2, wouldn't work.

In 1952 the Engineering Advisory Committee recommended to the commission that it undertake a review of the S.D. 109 inflow-outflow studies and computations. The commission agreed. (Stip. Ex. 4, Minutes, PRC, June 27, 1952, p. 1). The Texas Engineering advisor, Mr. Lowry, began that review. By January 3, 1953, he had submitted to the Engineering Advisory Committee:

. . . a preliminary report of his studies on the basis for the inflow-outflow computations, and suggested certain changes. . . . It was agreed that the final result would show a more accurate measure of the 1947 condition The final report should be submitted as soon as possible. . . . (Stip. Ex. 4, Minutes, PRC, January 22, 1953).

The Engineering Advisory Committee withheld the 1951 inflow-outflow determinations pending completion of the inflow-outflow revision. Computed on the old basis, the reach from Alamogordo Dam to the state line showed a debit of 23,000 acre feet. When the Engineering Advisory Committee reported this to the commission itself, neither state moved that the commission proceed on the departure indicated by use of the old engineering data. Instead, the commission accepted the committee report that inflow-outflow revisions were not yet complete and consequently that no final computations for the 1949-1951 three year period could be made.³ (Stip. Ex. 4, Minutes, PRC, January 22, 1953 pp. 3-4).

3. Subsequently the commission determined that it is not empowered to make findings for years prior to 1950. See, Art. VI(b).

By so doing the commission indicated its interpretation of the compact's allocation provisions. The commission's acceptance of the committee's recommendation that no final determinations be made for the 1949-1951 period showed that the commission believed that it would have been contrary to the compact to have based findings on data known to have distorted the 1947 condition. (Stip. Ex. 2, Minutes, EAC, January 17, 1952, p. 9; Stip. Ex. 4, Minutes, PRC, January 17, 1952, pp. 2-3). In a negative sense the commission action also indicated that it was not bound to the Plate No. 2 curve; utilization of the curve would have revealed a departure which the commission thought to be unreasonable so soon after 1948, given the absence of any significant changes on the river. Finally, in a positive sense, the commission action showed that both states agreed that the 1947 condition inflow-outflow standard would be changed to more closely approximate that condition in fact.

To complete that process the Engineering Advisory Committee appointed a subcommittee that was functioning by April, 1953. Named the "Engineering Subcommittee on the Inflow-Outflow Refinement Studies" and made up of engineers from both states, the subcommittee concluded initially "that there is a great deal of additional information available which can and should be used to refine the river gain and loss studies and to better define and establish the 1947 condition." (Stip. Ex. 6, Minutes, I-OS, April 24, 1953, p. 1). In particular the subcommittee proposed to re-study the flood inflow data "in order that present and future computations of the basic inflow and outflow will be on as nearly a comparable basis as possible." (Stip. Ex. 6, Minutes, I-OS, April 24, 1953, p. 1). Whatever discussion there might have been among subcommittee members about the anticipated scope of work was resolved by the Engineering Advisory Committee when it reported to the commission in early 1954:

The original function of the subcommittee was to refine some of the methods used to determine flood inflows which are unmeasured below Alamogordo Reservoir and to correct obvious errors which appeared in the original computations. After some discussion of the problem by the committee it became apparent that the entire matter of inflow-outflow should be reviewed by the subcommittee. . . . The subcommittee, therefore, was instructed to determine as accurately as possible inflow-outflow relationships under the 1947 condition and report back to the Engineering Advisory Committee at the earliest date in order that it may make recommendations to the Commission. (Stip. Ex. 2, Minutes, EAC, January 4, 1954, p. 5).

The commission itself adopted the report and its recommendations and agreed that neither annual reports nor annual departure determinations would be made until the Engineering Advisory Committee and its subcommittee had completed their work. (Stip. Ex. 4, Minutes, PRC, February 15, 1954, p. 4). The working subcommittee itself reported to the Engineering Advisory Committee:

At the annual Commission meeting held January 21, 1954, the sub-committee was instructed to determine as accurately as possible the inflow-outflow relationships that existed under the 1947 condition. (Stip. Ex. 6, Minutes, I-OS, October 21, 1955).

Everyone contemplated a complete re-survey of the 1947 condition standard against which departures would be measured.

Commission assignment of other compact related work to the Engineering Advisory Committee delayed beginning the complete revision, but neither state objected to a work priority that would delay production of a new description of the 1947

condition against which departures could be determined. (Stip. Ex. 2, Minutes, EAC, October 20, 1954, pp. 1-4; Stip. Ex. 4, Minutes, PRC, October 21, 1954, pp. 3-4). By October, 1955, the first priority work of the engineering committee had been sufficiently completed to allow a return to the 1947 condition re-study as previously approved by the commission itself in January of that year. (Stip. Ex. 4, Minutes, PRC, January 20, 1955, p. 4).

In April, 1957, the issue of the immutability of the 1947 condition inflow-outflow relationship as depicted in S.D. 109's Inflow-Outflow Manual Plate No. 2 formally came to a head. On April 1, the subcommittee presented its report to the Engineering Advisory Committee. (Stip. Ex. 6, Minutes, I-OSC, April 1, 1957). The report included departure determinations. The subcommittee suggested that it had arrived at those departures using techniques different from those in the inflow-outflow manual to determine certain critical values, like flood inflows, necessary to locate the post-1947 inflow point on the existing 1947 condition curve. From that point one would look to the corresponding outflow point on that curve and compare it to contemporaneous outflow data to determine departures for that year. The April 1, 1957 report on departures had altered the manner of entering the 1947 condition curve, but had not changed the curve itself. Nothing had changed the original description of the 1947 condition inflow and outflow relationship.

When the subcommittee offered its report and computations to the Engineering Advisory Committee, a flurry of motions ensued. A Texas representative moved that the report of the Inflow-Outflow Subcommittee, including the computations for the period through 1955 be accepted and turned over to the commission. New Mexico representatives did not second the motion for the reason that a number of the problems had not

yet been sufficiently studied and resolved. Then a New Mexico representative moved that the Inflow-Outflow Subcommittee report be accepted and transmitted to the commission, with the understanding that the administrative computations included therein would be subject to revision as new data became available from continuing consideration and studies such as those listed in the subcommittee report. The Texas representatives declined to second the motion, noting that arithmetical errors should be corrected if discovered at some later date, but that the computations should not be considered to be provisional in other respects.

Finally the Engineering Advisory Committee agreed to forward the report to the commission "with an explanatory statement of the lack of agreement" as to how and whether it should be adopted. In the process the Texas member of the working subcommittee explained that the Inflow-Outflow Manual's Plate No. 2 "defined the 1947 condition and was not subject to change on the basis of later information." The New Mexico member replied that "as additional information becomes available it should be utilized, where possible, to better define the 1947 condition." The chairman of the committee explained the two alternatives expressed by the opposing views as a choice between accepting the 1947 condition inflow-outflow curve based on the pre-compact work of the Engineering Advisory Committee and depicted in the Inflow-Outflow Manual's Plate No. 2 or developing new computations to describe the base 1947 condition that would perforce alter both the pre-compact engineering work and the curve that resulted from it. (Stip. Ex. 2, Minutes, EAC, April 2 and 3, 1957, pp. 5-15).

Until July, 1957, the Pecos River Commission had made no findings of post-1947 departures from the 1947 condition prerequisite to the second step determination of what part of the departures were attributable to "man's activities" because

both states implicitly recognized that the commission still lacked an acceptable definition of that 1947 condition on which to base the subsequent and ultimate compact determinations. Neither state had ever moved the commission to make initial findings based on the original work of the Engineering Advisory Committee that went into S.D. 109.

At the eighth annual commission meeting, the Legal Advisory Committee reported to the commission, as it had the day before to the Engineering Advisory Committee, that the commission had authority to correct any mistakes in the inflow-outflow "computations and criteria," but that the inflow-outflow curves, graphs, and plates in S.D. 109 were "more or less sacred." The Legal Advisory Committee expressed its reluctance to change S.D. 109's "curves, graphs, and plates" not by suggesting that the commission could not alter them under the compact, but by suggesting that the commission apply a higher than normal burden of proof in assessing proposed changes, at one point referring to "substantial evidence" and at another to "clear and convincing evidence." (Stip. Ex. No. 2, Minutes, EAC, July 29 and 30, 1957, p. 2; Stip. Ex. 4, Minutes, PRC, July 29, 1957, p. 173). At its meeting in July, 1957, the commission approved and adopted the position of the Legal Advisory Committee.⁴ At the same meeting the commission affirmed its understanding of the compact by approving and adopting a report of the Engineering Advisory Committee recommending formation of a special subcommittee to re-study the 1947 condition inflow-outflow relationships on the upper and lower reaches of the river in order to determine whether

4. Subsequently, in a formal opinion, the Attorney General of Texas offered the same advice, concluding that "the Commission acted within its prescribed powers in adopting the . . . Review of Basic Data." See, Texas Attorney General Opinion No. M-535, December 5, 1969. [Stip. Ex. No. 12(a)(d)].

the relationships depicted by the curves in the Inflow-Outflow Manual should be modified, presumably under the evidentiary standard set forth by the Legal Advisory Committee and adopted by the commission.

The commission reaffirmed that construction of its own power in 1961 when it adopted the Review of Basic Data's altered description of the 1947 condition for the Pecos River's middle basin, the Alamogordo-state line reach. The commission minutes indicate that those alterations were adopted as:

. . . amendments, refinements and additions to the basic data of the commission and considered as such in all actions and findings of the commission, and as presenting the present best information on the subjects covered thereby. (Stip. Ex. 4, Minutes, PRC, January 31, 1961, p. 247).

Additionally, pursuant to the Art. V(d) 4-6, the commission jointly demonstrated its construction of the compact meaning of the critical term "1947 condition" by readopting the previous year's findings of fact for the 1950-1959 period with the correction of two computational errors. It also extended the findings through 1961 based on the same principles and the same redescribed 1947 condition.

In his report of February 2, 1979, the Master concluded that the actions of the Pecos River Commission between 1948 and 1962 did not constitute a contemporaneous construction of the meaning of Articles II(g) and III(a). While agreeing with New Mexico that the term "1947 condition" was meant to refer to a real situation, the Master refused to attribute any significance to the actions of the commissioners and their engineer advisors. On April 6, 1979, New Mexico questioned the Master's position. (New Mexico's Objection to the Report of the Special Master on Issues Raised by Paragraphs 4(a), (b), and (c) of the Pre-Trial Order). Responding to New

Mexico's objections, the Master distinguished the cases that hold that an administrative construction of disputed terms of an interstate compact is controlling, absent a compelling indication that it is wrong, by stating that administrative action "occurred from 1949 to 1961 but failed to produce a result." (Report, August 13, 1979, p. 55). According to the Master: "Twelve years of action without a result is not contemporaneous construction which aids in the construction of a legal obligation." (*Id.*, pp. 55-56).

On August 13, 1979, the Master prepared a second report, again providing the opportunity to file objections. In response to New Mexico's objections of August 31, 1979, the Master states:

New Mexico objects to the Master's conclusion that the actions of the Pecos River Commission do not constitute a construction of the Compact within the meaning of the decision of *E. I. Du Pont de Nemours & Co. v. Collins*, 432 U.S. 46, and similar cases. The Master adheres to his ruling. He finds nothing in *Power Reactor Co. v. Electricians*, 367 U.S. 396, or in *Udall v. Tallman*, 380 U.S. 1, which causes him to change his mind. (Report, p. 49).

We believe the Master's refusal to attribute legal significance to the administrative behavior of the Pecos River Commissioners and their engineering advisors is wrong for two reasons. First, it makes no difference whether administrative behavior produces a result.⁵ Secondly, the Master's conclusion is indifferent to the reasoning of the cases.

5. While it makes no difference whether administrative behavior produces a result, a result was produced by the Pecos River Commission. We fail to understand how the Master could view the commission's findings of fact in 1961 and 1962 as being something other than the consequence of the commission's unyielding efforts between 1949 and 1961 to more accurately describe the 1947 condition and to determine whether New Mexico had complied.

The dispute relates to the meaning of the 1947 condition. The question the Court should ask is whether there was any administrative action that implicitly construed the 1947 condition. We have reviewed the administrative history at length. See, Statement 4(b) – Pecos River Commission Administrative History, pp. 7-18; New Mexico's Trial Brief Pursuant to Paragraph 5(a) of the Special Master's Pre-Trial Order of October 31, 1977, pp. 8-17; and pp. 11-19, *supra*. The history illustrates that the 1947 condition was construed contemporaneously in the same way New Mexico seeks to have this Court construe it, viz., as a set of circumstances existing in the Pecos River Basin in 1947. The Court has held that such administrative interpretation is legally significant. *Udall v. Tallman*, 380 U.S. 1. Here, nearly all of the representatives of the states who participated in the negotiation of the compact were involved in its post-ratification administration. Under these circumstances, the Court has held, the reasoning beneath the holding in *Udall* is all the more cogent. *Power Reactor Co. v. Electricians*, 367 U.S. 396, 408. See also, *E. I. Du Pont de Nemours & Co. v. Collins*, 432 U.S. 46.

Here, the formal findings of the Pecos River Commission in 1961 and 1962 may not have been coincident with the adoption of the compact in 1948, but within the meaning of *Du Pont* and similar decisions, they were the result of contemporaneous administrative action. The record establishes that the Pecos River Commission acted between 1950 and 1962 toward the findings made in 1961 and 1962. Cf., pp. 4-26, New Mexico's Statement 4(b) – Pecos River Commission Administrative History. It is true that the initial commission finding on compact compliance was not consummated until 1961, but it was nonetheless the concerted action of the representatives of both states which had the effect of construing the compact to mean that the 1947 condition referred to in Art. III(a) is, as the Master has found, the actual circumstances in the Pecos River Basin in 1947.

In response to the administrative history of the Pecos River Compact and the mutual understanding of the states' representatives respecting the meaning of the 1947 condition, Texas belittles the history. Referring to Texas's agreement to the development and use of the Review of Basic Data to account for deliveries during the 1950-1961 period, Texas states:

That the Texas commissioner took such action is uncontested. The significance of the action is, however, questionable. At best this constitutes 'fact finding' by the Pecos River Commission. Such findings are not conclusive; under the Compact's express terms they constitute only prima facie evidence of the facts found. (Texas's Objections, p. 20).

Aside from the facts actually found by the commission in 1961 and 1962, the fact implicitly found was that the 1947 condition is something more than its initial description. Texas shared in this view until 1969 when its new commissioner attempted to repudiate its actions and its understanding. The record generously supports this view, and the Master so found. The only support Texas can muster is a crabbed reading of Art. II(g), a reading that would render queer and irrational the behavior of all of those persons involved in the post-adoptive administration of the compact. On its face, Texas's position is not credible.

An impartial reading of the relevant compact provisions, Tipton's explanation of the compact, and the administrative history of the compact all support the Master's finding that the 1947 condition is a tangible and real stage of development on the river. To obviate the force of this support, Texas asserts that "the Master has failed to recognize the significance of the year 1957 as a turning point in the direction of the engineering studies in which the Commission was engaged." (Texas's Objections, pp. 10-11). Texas argues:

Until 1957 the Commission was not engaged in a restudy of the 1947 Condition or the description of that condition contained in the Report of the Engineering Advisory Committee. After 1957 the Commission, unquestionably, did engage in such a study – producing the Review of Basic Data's routing study describing the condition anew. Prior to 1957, however, the Commission was simply conducting studies suggested by the Inflow-Outflow Manual and attempting to remedy some deficiencies in the manual. (*Id.*, p. 11).

While the record does not support this view (*cf.*, pp. 11-19, *supra*), it is neither here nor there. The principal actors were the same men in 1957 who negotiated the compact in 1947 – they knew and agreed that the 1947 condition was reality, *i.e.*, “present conditions on the river;” as a matter of law, it makes no difference whether they administratively expressed that mutual understanding in 1950, 1953, or 1957. What's important is the fact of mutual understanding, not whether it was expressed immediately or was latent. Moreover, Texas's argument ignores the underlying reason that the states agreed that the 1947 condition had to be better understood before any meaningful administration could be undertaken: Without a reasonably accurate description of the 1947 condition the administrative obligation to isolate departures due to man's activities from gross indicated departures would be practically impossible or, at best, confusing and unproductive.

Texas acknowledges that if in compact administration it is determined that there are negative departures from the inflow-outflow relationship being used for compact administration, it remains to be determined whether the departure is caused by man's activities:

Even after a pattern of departures from the established relationship develops, one final step remains to determine New Mexico's compliance or noncompliance with

the compact requirements. It must be determined that the departure is caused by man's activities rather than natural causes. Under Article III(a) New Mexico's obligation only extends to departures caused by man's activities. . . . (Texas's Objections, p. 6).

It is important to note that departures from the inflow-outflow relationship could result from several causes other than increased depletions by man's activities in New Mexico. Negative departures could result from the continuation of ground water uses being made in 1947, but not yet at that time fully reflected as reduction in stream flow. Departures could result from changes not the result of man's activities such as changes in infestation by salt cedar or other vegetation or channel deterioration.

Departures also could result from abnormal distribution of flood inflows between upstream and downstream reaches of the river. Arithmetically, flood inflow of a given magnitude contributes the same amount to the index inflow whether it arises in a downstream reach or upstream reach. However, the percentage of Alamogordo-Acme flood inflows arriving at the state line is much smaller than the percentage of Carlsbad-state line flood inflows arriving at the state line. Consequently, if flood inflows arising in the Carlsbad-state line reach contribute an abnormally large percentage of the total flood inflow in any year or series of years, a positive departure in state line outflow can be expected and vice versa.

Departures from the inflow-outflow relationship of Plate No. 2 could also result from error, inconsistency, or incompleteness in the routing study made to establish the inflow-outflow relationship. It is reasonable to expect that reach by reach analysis of relatively short segments of the river from the headwaters to the state line made after negative departures were indicated would result in detection of those discrepancies in the routing

study and in reliable assessment of whether the indicated departures were the result of depletion by man's activities or other causes, such as discrepancies in the studies. (*See*, Tr. 1074-1076, 1122, 1302-1323, 1910-1913, 1916, 2500-1508).

The Review of Basic Data was, in effect, a reach by reach analysis of the river to ascertain any error, inconsistency or incompleteness of the 1948 Engineering Advisory Committee work and to redefine as might be found necessary the 1947 condition inflow-outflow relationship portrayed by Plate No. 2 of S.D. 109. Such revision was found necessary and was effected by the commission's adoption of the Review of Basic Data. The reach by reach analysis of the Review of Basic Data could have been undertaken after the commission had found departures from the relationship shown on Plate No. 2 of S.D. 109 with effectively the same results found in the Review. However, the commission's decision to undertake reanalysis reach by reach before determining what departures, if any, from the relationship of Plate No. 2 had occurred could be reasonably expected to have the desirable effect of avoiding undue concern or unwarranted complacency and misunderstandings between the states that might result from proceeding to the reach by reach analysis after determining departures from Plate No. 2 of S.D. 109, the primary analysis tool, assuming it was known to be inaccurate.

Despite Texas' acknowledgment that "under Article III(a) New Mexico's obligation only extends to departures caused by man's activities," she objects to the Master's statement that:

If the base contains errors which affect the departure, the question is whether the departure is the result of error in the base or man's activities. Although man's activities are not the present concern, the Master believes that acceptance of an error does not convert that error into an activity of man. (Report, p. 38).

Texas seems to argue that Plate No. 2 of S.D. 109 must be

treated as an immutable schedule setting the deliveries which New Mexico must make to remain in compliance with the compact. The Master has found, however, that Plate No. 2 is not a schedule, and the record fully supports that view. The compact provides that New Mexico shall not deplete by man's activities the flow of the river beyond the equivalent of that available to Texas under the 1947 condition. Engineering mistakes are not activities of man, *i.e.*, beneficial consumptive uses of water for which New Mexico is liable. *Cf.*, Art. II(e).

When it is understood and agreed that "under Article III(a) New Mexico's obligation only extends to departures caused by man's activities," no principle of law or equity is involved in the question whether Plate No. 2 should be revised. Common sense dictates that Plate No. 2 should be revised as soon as it is determined that it is based on error, as the Commission did in adopting the Review of Basic Data.⁶

POINT II: The Review of Basic Data recognizes, rather than detracts from, New Mexico's obligations under Art. III(a).

Texas has argued that the Review of Basic Data constitutes an impermissible change in New Mexico's obligation under

6. Texas states that "the major task which occupied the Commission's engineers prior to 1957 was that of improving the flood inflow computation techniques provided in the manual." (Texas's Objections, p. 12). This statement apparently is intended to support Texas' argument that prior to 1957 no consideration was given any modification of Plate No. 2, which is based on the 1947 condition routing study. It is important to recognize that it is essential that the same flood inflow computation techniques that were used in the 1947 condition routing study be used in the administrative computations. Thus, any change in the techniques for administrative computations would dictate similar changes in the techniques used for the routing study.

Art III(a). In view of the "undisputed fact that the engineering reports to the negotiators contained mistakes, inconsistencies, and omissions which were promptly recognized by the agency charged with the administration of the compact" (Report, p. 37), and the fact that the 1947 condition was understood to be the physical reality of the river, the Master has found that the Review of Basic Data "*recognizes, rather than detracts from, the obligation.*" (Report, p. 41, emphasis added).

Mistake of Fact

Missing the point, Texas argues that "(t)o the extent Article II(g) incorporates shortcomings inherent in the original routing study into its definition of the 1947 Condition, both New Mexico and Texas are bound by them." (Texas's Objections, p. 22). With no analytical discussion, Texas relies upon three cases: *Rhode Island v. Massachusetts*, 45 U.S. 590, *Virginia v. Tennessee*, 148 U.S. 503, and *Hinderlider v. La Plata River & Cherry Creek Ditch Co.*, 304 U.S. 92. In *Rhode Island* the Court said:

It may be a matter of doubt, whether a mistake of recent occurrence, committed by so high an agency in so responsible a duty, could be corrected by a court of chancery. Except on the clearest proof of the mistake, it is certain there could be no relief. No treaty has been held void, on the ground of misapprehension of the facts, by either or both of the parties.
(at 635).

While New Mexico believes that Texas misapprehends the law in this regard, Texas applies its imagined principle of law to a tendentious and distorted view of the facts.

The Pecos River Compact does not allocate fixed amounts or percentages of a measured flow of water, but rather makes

its apportionment by limiting man-made depletions at the New Mexico-Texas state line to an amount equivalent to the depletions resulting from man's activities in 1947. Based upon the earlier work of the Pecos River Joint Investigation, the Engineering Advisory Committee to the compact negotiators sought to determine the amount of water available for use in Texas based upon the exercise of six sets of conditions in New Mexico during the study period 1905 to 1946. One of the conditions considered was the 1947 condition, which was "intended to represent the present situation on the river." (S.D. 109, p. 10).

Considerable engineering difficulty arises from the concept of a delivery obligation based upon an inflow-outflow relationship derived from the arithmetical routing of various amounts of water through given conditions of consumption and use on the river:

. . . (Y)our suggestion places on the engineers a considerable burden. I for one am willing to accept such burden and the responsibilities it entails. I believe, however, it would be preferable if the Commission itself agrees upon some kind of condition which should obtain on the river considering all the equities of the situation. The engineers could then get together and suggest means whereby a compact would insure the administration of the river in accordance with that condition. The engineers could also analyze the condition in order to appraise its effect on each of the states. (Comments of Mr. Tipton, Stip. Ex. 14(a), Minutes, PRC, March 10 and 11, 1948, p. 31).

It may be true that the Texas negotiators assessed the amount of water that might be available to Texas on the basis of the six conditions analyzed by the Engineering Advisory Committee, but it must be remembered that the committee reasoned *from* given conditions on the river *to* the varying

amounts; in other words, the essential element of the suggested bases of the compact was in each instance a set of circumstances or a condition on the river sought to be arithmetically described, the amount reflected as available to Texas under each condition being no more than the arithmetical result of each attempted description. As the Master has found, the agreement ultimately reached by the negotiators was grounded upon one such set of circumstances on the river and not upon the resulting delivery expectations that Texas might have had by routing various amounts of water through that condition.

For each of the six conditions the Engineering Advisory Committee indicated the average amount of water they thought would become available to Texas. These amounts might be characterized as the various expectations Texas might have had with respect to each condition or routing study. Texas views the bargain embodied in the compact in terms of expectations predicated upon routing given inflows on the basis of the Report of the Engineering Advisors. However, given the fact that the compact was designed "to make secure and protect present development in the states" in 1947 instead of having been designed to obligate New Mexico to a schedule of fixed deliveries, the only analytically correct way of understanding the bargain described in Article III(a) is to focus on the efficacy of the Report of the Engineering Advisors in providing the data necessary to the protection of the 1947 development. (Art. I). Texas, however, analyzes the consideration embodied in Art. III(a) by reducing the agreement to static figures, urging that she could legitimately expect to receive on the average 264,700 acre-feet per year on the basis of the Engineering Report, but only 219,500 acre-feet under the Review. (Brief of State of Texas in Response to New Mexico's Brief in Support of Affirmative Defenses, p. 34).

The difference, according to Texas, cannot be reasonably

characterized as a "refinement." Texas's position, however, would be justified only if its premise were correct, *i.e.*, that the analytically correct way to look at the matter is to quantify average expected deliveries, albeit on data which distorts the 1947 condition in such a way as to make impossible the protection of development existing in 1947. In effect, Texas asks the Court to write into the compact the following provision:

Art. III(a) (1): If, however, the engineering data to be used in the commencement of administration pursuant to paragraph (a) of this Article shall prove to be inaccurate, New Mexico shall not deplete by man's activities the flow of the Pecos River at the New Mexico-Texas stateline below an amount which would afford New Mexico protection for its development existing in 1913, 1923, or some other unknown date coincidentally revealed by employing such erroneous engineering data.

The bargain embodied in Article III(a) is articulated in terms of the conditions on the river in 1947; it is not written in terms of a schedule of deliveries. In order to protect the development existing in both states in 1947, the 1947 condition became the basis of the compact. The uses are physical realities. To the extent that the development in New Mexico is inaccurately described in the Engineering Advisory Report, either New Mexico or Texas would be adversely affected if the Court were to adopt Texas's argument. The evidence shows that the inaccuracies would preclude the protection of development existing in 1947; the net effect of the inaccuracies would work against New Mexico. However, no matter where the chips may fall, the element of consideration embodied in the compact requires a description of the 1947 stage of development in New Mexico that is as nearly accurate as practicality allows.

Ignoring the contemporaneous understanding of the parties, the controlling fact that Art. III(a) is conceptualized in terms

of the maintenance of the status quo in New Mexico as of 1947 with respect to the consumptive use of water by man's activities, and the fact that the administrative history of the compact provides unwavering support for New Mexico's view of the matter, Texas argues that the magnitude of the inaccuracies necessarily results in the conclusion that the adoption of the Review of Basic Data was tantamount to an unauthorized amendment of the compact:

It is apparent that the difference between deliveries under the Review of Basic Data routing and the 1947 Condition routing is as great, or greater, than the difference between the 1947 Condition routing and those of the other alternative routings considered during compact negotiations. If the differences between the 1947 and Review of Basic Data routing are as great as the differences between routings that were clearly considered distinct alternatives at the time of compacting, then the Review of Basic Data must amount to more than a 'refinement' of the 1947 Condition described in S.D. 109. . . . By adopting the Review of Basic Data and changing delivery requirements accordingly, the Commission clearly attempted to change the apportionment of water under the Compact in a manner that could have only been accomplished by formal amendment of the Compact. (Brief of the State of Texas in Response to New Mexico's Brief in Support of Affirmative Defenses, pp. 34-35).

Texas's argument is a *non sequitur*. In the second meeting after the adoption of the compact the commission promptly set out to:

Study and investigate the items recommended in the inflow-outflow manual directed toward a more accurate determination of inflow-outflow relationships. (and to) Determine more accurately the '1947 Condition' as defined in the Compact:

- (a) Obtain aerial photos of river bottom lands.
 - (b) Delineation of areas involving non-beneficial consumption of water.
 - (c) The assembly and analysis of all pertinent hydrologic data available.
- (Stip. Ex. 4(b), Minutes, PRC, December 9 and 10, 1949, p. 8).

No limit on the magnitude of correctable error was contemplated.

By subsequently adopting in 1961 the completed portions of its investigation, the commission did not modify or change New Mexico's obligation under Art. III(a), *i.e.*, the obligation not to diminish by man's activities the quantities of water Texas would receive under the 1947 condition. Texas does not distinguish between the obligation articulated in Art. III(a) and the description of that obligation contained in S.D. 109. A comparison of the 1947 condition to the other five studies is inapposite. All of the alternative "conditions" were inaccurately described. If, for instance, we sought instead to protect the New Mexico development cognizable under the 1905-A condition, we could not do so because the engineering data are wrong. We would first have to correct them.

Texas has argued that a mistake of fact at the time of the negotiations is not relevant now, *i.e.*, that it could not invalidate the compact. In other words, if the negotiators made their bargain based upon a mistaken notion of the factual elements of that bargain, they're stuck with it. *Virginia v. Tennessee*; *Rhode Island v. Massachusetts*, *supra*. We disagree with that view of the law, but Texas nevertheless applies the principle self-indulgently. The negotiators agreed that New Mexico would not deplete by man's activities the flow of the Pecos River at the state line below an amount which would give Texas a quantity of water equivalent to that available under

the 1947 condition in New Mexico. It is the 1947 condition — a physical circumstance sought to have been defined as accurately as possible in S.D. 109 — that is the crucial and sometimes misunderstood fact that cannot now be ignored and that the states are “stuck with;” in other words, no mistake of fact is involved in the compact agreed upon. The Report of the Engineering Advisors in S.D. 109 was thought to have defined the 1947 condition with accuracy, but it was well understood that the definition might require and was amenable to correction. Texas cannot now claim that the real obligation embodied in Art. III(a) is an erroneous description of the 1947 condition.⁷

While Texas is wrong in viewing the apportionment as being based intrinsically on an engineering description of the 1947 condition instead of the condition itself, its view of the law regarding mistake of fact is incorrect. The first case to discuss

7. In attempting to circumvent one of the expressions of the engineer advisors’ understanding that the initial 1947 condition routing study was subject to correction to better ascertain the condition, Texas argues:

The closest this language (S.D. 109, pp. 150-51) comes to suggesting modification of the 1947 Condition routing study is its suggestion that the inflow-outflow relationships provided by the manual should be modified to correspond with an improved method of estimating flood inflow which might be developed. *That the inflow-outflow relationships might be changed is not contested* — the Compact expressly provides that the entire inflow-outflow method of accounting might be replaced if a better or simpler method is developed. (Texas’s Objection, p. 19, emphasis added).

Apparently, Texas does not understand the import of the fact that the engineers expressed the opinion that the inflow-outflow relationships might be changed. The relationships referred to are those shown in the Inflow-Outflow Manual, including Plate No. 2, the graphic illustration of the initial 1947 condition routing study. It makes little sense to be able to change the inflow-outflow relationship, *i.e.*, the graphic product of the 1947 condition routing study, without changing the study that produced it.

the question of whether an interstate compact can be held void on the grounds of a mistake of fact was *Rhode Island v. Massachusetts*, 45 U.S. 590 (1846). In that case Rhode Island argued by analogy to general principles of equity, contracts, and property that its boundary commissioners believed that the phrase "within. . . three English miles of the south part of Charles River," which was intended in the original English grant of Massachusetts to delimit the southern boundary of Massachusetts and what was to become the northern boundary of Rhode Island, meant within three miles of the main channel of the Charles River instead of within three miles of its most southerly tributary. Massachusetts responded to the argument not by maintaining that such a mistake could not vitiate the compact, but rather by establishing that such a mistake was highly unlikely and that the passage of time, in any event, created an estoppel.

The Court did state that "(n)o treaty has been held void, on the ground of misapprehension of facts by either or both of the parties." (p. 634). The statement, however, was not predicated on legal principle, but rather on the fact that no clear and convincing "proof of mistake" had been made in any case treating the question. Speaking of the mistake in question, the Court stated that "(f)rom the nature of this supposed mistake, it is scarcely susceptible of proof." (p. 636). Agreeing with Massachusetts, the Court found Rhode Island's claim difficult to believe and concluded that protracted sovereign possession under claim of title should be protected. (See generally pp. 628-639).

Forty-seven years later the Court addressed the issue again in *Virginia v. Tennessee*, 148 U.S. 503 (1893), where it was stated that "(a)fter such compacts have been adhered to for years neither party can be absolved from them upon showing errors, mistakes or misapprehension of their terms, or in the line estab-

lished. . . ." (p. 525). Given nearly 100 years since the demarcation, as well as the acquiescence of both states for nearly that length of time, the Court held:

The compact of the two states, establishing the line adopted by their commissioners, and to which Congress impliedly assented after its execution, is binding upon both states and their citizens. Neither can be heard at this date to say that it was entered into upon any misapprehension of facts. No treaty, as said by the court, has been held void on the ground of misapprehension of facts, by either or both of the parties. (p. 527, citing *Rhode Island v. Massachusetts, supra*).

The deciding factors in both *Rhode Island v. Massachusetts* and *Virginia v. Tennessee* were reliance through time and acquiescence by the states. Neither case stands for the proposition, as Texas argues, that "(a) mistake in fact at the time of compacting does not invalidate or alter the compact." (Brief of the State of Texas in Response to New Mexico's Brief in Support of Affirmative Defenses, p. 36). On the contrary, both cases were decided in recognition of the principle that such a mistake could invalidate a compact.

In *Hinderlider v. La Plata River & Cherry Ditch Co.*, 304 U.S. 92 (1938), Justice Brandeis indicated that there may be "in the proceedings leading up to a compact or in its application, some vitiating infirmity" that could render a compact nugatory. Little else was said:

There was no allegation, no evidence in the record, no suggestion in brief or argument, that the apportionment agreed upon by the commissioners was entered into without due enquiry; or that it was not an honest exercise of judgment; or that it was inequitable. (p. 109).

While Justice Brandeis' remarks were not fully explanatory, it could be concluded that either mistake of fact or fraud at the

time of compacting could amount to a "vitiating infirmity." Aside from the constitutional issue in *Hinderlider*, there was no intimation of what sort of vitiating infirmity might arise from the "application" of a compact.

Texas's argument that the commission's ultimate adoption of the corrections made in the Review of Basic Data was tantamount to an amendment of the compact is, in the ultimate analysis, an expression of Texas's regret that the obligation embodied in Art. III(a) was conceptualized in terms of a set of conditions in New Mexico instead of a schedule of deliveries to Texas. Except insofar as the water was to have been routed to the Carlsbad project as though it had been developed to 25,055 acres and to the Ft. Sumner Project as though it had been developed to 6,500 acres to protect the federal interests and promote the consent of Congress, the 1947 condition in Art. III(a) was actual and real. The parties knew that, and Texas should not be permitted to change her mind now. It is Texas that wants to amend the compact.

Unilateral Repudiation

With respect to the question of whether the 1947 condition was tangible reality or an erroneous engineering description of that reality, Texas has effectively sought to repudiate the Review of Basic Data, disavowing the actions of the commission and disclaiming any responsibility for or obligation under those actions. (Stip. Ex. No. 4, Minutes PRC, February 21, 1974, pp. 468-480). The attempted repudiation was twofold. On the one hand Texas sought to relieve herself of the actual findings of the commission with respect to pre-1962 deliveries, and on the other she sought to avoid the consequences of those findings with respect to continuing compact administration.⁸

8. This action could have been an action in *mandamus* in federal district court by New Mexico against the Pecos River Commission to compel continued administration. See, Comment, "Federal Question Jurisdiction to Interpret Interstate Agreements," 64 Geo. L. J. 87 (1975).

Before the Master we urged that Texas cannot unilaterally reject the findings of the Pecos River Commission. The Master responded by stating that "(w)e have not reached the point in the case where the effect of the Texas approval of the RBD for the determination of 1950-1961 departures is significant." (Report, p. 41). However, if the prohibition against unilateral repudiation has a bearing on the way in which the compact was administratively construed, as it certainly does, then it is indeed significant.

In 1961 and 1962 both states believed that the completed portion of the Review of Basic Data provided a sufficient basis upon which to predicate findings pursuant to Art. V(d) (6). The commission did so. Texas did not explicitly agree to the application of the revised data to annual flows subsequent to 1961. However, since the commission's formal adoption of the revised data, *i.e.*, since its conclusion that the data should be used to yield gross departures from the 1947 condition, different data have not been adopted. The findings that were adopted by and binding on the commission are still binding. The commission has not repudiated the Review of Basic Data.

In seeking to repudiate the binding effect of commission action, Texas sought to circumvent the compact. Article V(a) provides for a three member commission, but the federal representative has no vote. Only the signatory states can vote. The commission's internal rules made unanimity prerequisite to any commission action, whether positive or negative. (Stip. Ex. No. 4, Minutes, PRC, December 9, 1949, p. 8, Art. IV(9), Rules of Internal Organization of the Pecos River Commission). The power to "terminate" the compact, which is no different than the power to terminate participation in the compact's administration, is left exclusively to the legislatures of *both* states by Art. XIV. Texas never moved that the commission take action on its 1974 repudiation. (Stip. Ex. 4, Minutes, PRC, February

21, 1974, p. 472). It never approached its own legislature, let alone that of New Mexico, to terminate the compact.

The Court has consistently voided unilateral state action designed to define obligations under a compact. In *Dyer v. Sims*, 341 U.S. 22 (1950), the Court regarded this element of compact law as self-evident: "It requires no elaborate argument," it was held, "to reject the suggestion that an agreement solemnly entered into between states by those who alone have political authority to speak for a state can be unilaterally nullified or given final meaning by an organ of one of the contracting states." (341 U.S., at p. 28).

In *Dyer*, the West Virginia Supreme Court had voided altogether state participation in a previously entered multistate compact. Here, no coordinate branch of the Texas government nullified previous state participation in the Pecos River Compact. The Texas commissioner attempted to do it himself. In doing so he challenged the Pecos River Compact — which *is* as *is*, not as he would want it to be. Texas refuses to recognize that the power to administer a compact can only arise as a delegation of compact power, which is equally as exempt from unilateral state control as the compact itself. (Cf., *Hinderlider v. La Plata River*, 304 U.S. 92, 108). (See also, *Petty v. Tennessee-Missouri Bridge Comm.*, 359 U.S. 275, 285 (1959)).

Texas and New Mexico have jointly construed the compact to mean that the 1947 condition referred to in Art. III(a) is immutable, but that its description in the original engineering report is not. The Pecos River Commission also defined its view of the extent to which the compact contemplated that the definition of the 1947 condition contained in the initial report of the engineering advisors could be corrected or changed by subsequent administrative action when it adopted the Review of Basic Data in 1961. Texas cannot now change its mind.

CONCLUSION

The Master first reached his conclusion on the 1947 condition in his tentative report of February 2, 1979. After considering the parties' objections, he commented on his decision:

Gentlemen, I have carefully read your objections and exceptions to the February 2 Report. Let me say that from my experience of practicing law for over thirty years and being a Judge for, in a few weeks it will be twenty-five years, I have full realization that the worst way any Judge can decide a case is to decide against the contentions of all of the parties. It was with that realization and the hazards it presents that I made the report which I did, which in effect rejects the basic contentions of each State. (Tr. 2984-2985).

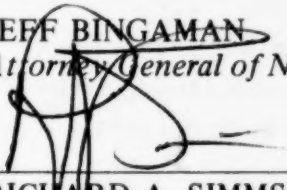
On the one hand, the Master has decided that the "1947 condition" is, as the compact negotiators understood in December, 1947, a term describing the "present conditions on the river," (S.D. 109, p. xxvi). In reaching that conclusion, the Master rejected Texas's attempt to unilaterally repudiate its own administrative construction of the compact. On the other hand, by orally construing his conclusion on the 1947 condition as meaning that the 1947 condition stage of development does not include the ground water uses developed before 1947, except to the extent that the effects of those uses had already been reflected in the flow of the Pecos River in 1947, the Master has effectively concluded that the 1947 condition was real with respect to surface water depletions, but not with respect to ground water depletions. Accordingly, New Mexico's understanding of the compact and its history was rejected.

We each, of course, believe that the Master was half right. Unlike Texas, however, New Mexico need not repudiate twenty years of cooperative compact administration and mutual understanding to clear the way to assert a novel theory of compact

meaning. New Mexico's view today is the same as it was when the compact was agreed upon and adopted. In this light we respectfully request that the Court overrule the Special Master and remand the case with instructions to proceed with trial with the understanding that: 1) the 1947 condition is that situation in the Pecos River Basin which produced in New Mexico the man made depletions resulting from the stage of development existing in 1947 even though the effects of those depletions had not yet been fully reflected in the flow of the river, and 2) the development that occurred during the year 1947 is part of that condition.

Respectfully submitted,

JEFF BINGAMAN
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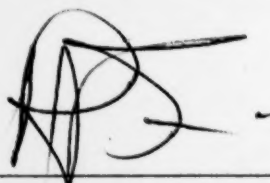
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CERTIFICATE OF SERVICE

Pursuant to Rules 42(5) and 33 of the Supreme Court Rules, I certify that three copies of the foregoing reply to Texas's objections were served upon counsel of record on December 27, 1979.

A handwritten signature in black ink, appearing to be 'R. A. Simms', written over a horizontal line.

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NO. 65, ORIGINAL

* * *

IN THE
SUPREME COURT OF THE UNITED STATES
OCTOBER TERM, 1975

* * *

THE STATE OF TEXAS,

Plaintiff

V.

THE STATE OF NEW MEXICO,

Defendant

* * *

TEXAS' REPLY TO NEW MEXICO'S OBJECTIONS
TO THE MASTER'S REPORT ON THE
OBLIGATION OF NEW MEXICO TO TEXAS
UNDER THE PECOS RIVER COMPACT

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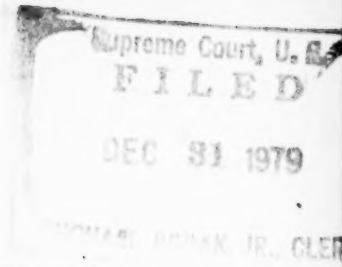


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* * *

New Mexico raises two objections to the Master's conclusions. First, New Mexico suggests that the cut-off date established by the Master for the 1947 Condition should be the end of the year 1947 rather than the beginning of that year. Second, New Mexico objects to the Master's conclusion that the 1947 Condition does not include depletions of the groundwater contribution to the river due to groundwater pumping going on in 1947 but not yet reflected in the flows of the Pecos River.

SUMMARY OF ARGUMENT

New Mexico discerns support for its objection to the Master's January 1, 1947, cut-off date from five sources: (a) statements by Mr. Tipton explaining the Compact; (b) the use of 1947 data in S.D. 109; (c) the administrative history of the Pecos River Commission; (d) Texas' failure to raise the precise date as a specific issue; and (e) excluded testimony of a New Mexico compact negotiator. None of these sources compel, or even support, New Mexico's assertion that the cut-off date should be December 31, 1947.

(a) Statements by Mr. Tipton, indeed even statements by Texas counsel, referring to "conditions in 1947" or using similar phrases are simply "loose references," as the Master has recognized. (Report of Special Master on Obligation of New Mexico to Texas Under the Pecos River Compact, p. 40; hereinafter referred to as the "Master's Report"). "That situation defined and described in the Report of the Engineering Advisory Committee" is a clumsy, awkward phrase. Rather than attempting such precision, all parties have fallen into the convenient shorthand, "conditions in 1947." Such loose references, as the Master has recognized, cannot take the place of the Compact's definitions and the actual engineering studies which underly the Compact.

(b) The use of 1947 data in S.D. 109 provides no support for a December 31, 1947, cut-off date. S.D. 109 contains 1947 data in only one place—the Inflow-Outflow Manual. Its use there is simply by way of example to demonstrate how administrative computations should be made in the future, using a year which was not involved in the 1947 Condition routing study. Similarly, 1947 data is used in the six tentatively submitted curves contained in the Inflow-Outflow Manual—curves which the manual's drafters expressly directed

should include data for several years after the Compact became effective. As the Master recognized, however, 1947 data played no part whatsoever in the engineering report defining the 1947 Condition. Thus, the inclusion of such data in the Inflow-Outflow Manual provides no support for New Mexico's contention.

(c) New Mexico urges two portions of the Commission's administrative history to support her December 31, 1947, cut-off date. First, she points to the inclusion of the year 1947 in the Review of Basic Data's revision of the 1947 Condition definition. Were this a valid action by the Commission, it might be a source of some support for the contention. The action was, however, beyond the authority of the Commission and the Master has ruled properly that Texas is not bound by it so far as the 1947 Condition question is concerned. (Master's Report, pp. 40-41). The second portion of the Commission's administrative history from which New Mexico discerns support is an early phase of Commission activity involving the collection of aerial photographs of the Pecos River Basin to aid in "more accurately defining the 1947 Condition." An examination of the Commission's records, however, discloses that this is yet another loose reference. The Commission's collection of these photographs was to observe the spread of salt cedars in the basin, not to "more accurately define" areas of irrigation in the year 1947.

(d) and (e) New Mexico's two final arguments on the cut-off date are equally weak. Texas' failure to raise the question of a specific cut-off date for the 1947 Condition provides no support for New Mexico's contention. Under Texas' view of the 1947 Condition the existence of a cut-off date is entirely immaterial. The condition is defined by the engineering study, in Texas' view; thus, looking to actual conditions on the river on January 1, December 31, or any other date is unnecessary. For this reason the issue was not raised. New Mexico's reliance upon the offered testimony of a New Mexico compact negotiator is similarly misplaced. The

testimony was entirely speculative and had no probative value. It was properly excluded by the Master.

New Mexico's second objection, that the 1947 Condition should include the right to deplete groundwater contributions to the river based upon groundwater pumping taking place in 1947, is completely baseless. While advanced with considerable ingenuity, it depends upon a completely disoriented view of the negotiating history, a novel, but mistaken, construction of the Compact's provisions, and a mass of irrelevant evidence that is outside the record of this case. Moreover, it totally ignores the clear and direct support for the Master's conclusions which is contained in the record of this case.

ARGUMENT AND AUTHORITIES

- A. The Master Has Properly Ruled That January 1, 1947, Is The Cut-Off Date Under The 1947 Condition—If There Must Be A Cut-Off Date At All.

Prior to evaluating New Mexico's argument on the cut-off date, an initial point must be made. As explained in Texas' Objections to the Master's Report, Article II(g) of the Compact ties the 1947 Condition to the situation defined in the original Report of the Engineering Advisory Committee. If this Court adheres to the Compact's definition of the 1947 Condition the question of the cut-off date for the 1947 Condition does not arise. Only when one departs from the definition of the condition contained in that original report, concluding that the "real" 1947 Condition is a tangible situation existing on the river and that the report is simply an inept attempt to describe that situation, does the question of the cut-off date present itself. It is only then that one is forced to choose a particular day to cut-off some of New Mexico's ever-increasing irrigated agriculture from inclusion as part of the 1947 Condition.

Texas urges the Court to adhere to the Compact's express provisions, thus obviating the necessity of choosing a particular cut-off date.

New Mexico's first line of argument in support of the December 31, 1947, cut-off date consists of Mr. Royce J. Tipton's explanation of the Compact at the Commission's December 4, 1948, meeting in Santa Fe, New Mexico. Typical of his statements is the one appearing at page 114 of S.D. 109 concerning salvaged water:

... any water salvaged up to the *quantity that was being non-beneficially consumed in 1947* is termed "water salvaged."

(emphasis duplicated from p.43, New Mexico's Objections to the Report of the Master and Brief in Support Thereof; hereinafter referred to as "New Mexico's Objections")

Contrasted to Mr. Tipton's statement is the following excerpt from the Appendix to the Report of the Engineering Advisory Committee, describing how the water lost to salt cedars was actually calculated in the 1947 Condition routing study:

(b) Artesia to Carlsbad.—Channel losses in this section of the river result primarily from the depletion of river water by the salt cedars which cover an area of approximately 14,000 acres at the head of Lake McMillan. An analysis of such losses was made during the progress of the PRJI as described on pages 55-57 of that report. That study resulted in a series of curves showing the relation between losses and available river flow at the Artesia gage. The studies of the committee based on data which has become available since the PRJI confirm these results.

The average annual water consumption by the salt cedars, under present conditions, is estimated at 55,000 acre-feet.

In order to check the methods that were used, *a detailed study was made for the years September 1944-August 1945 and September 1945-August 1946*. This study involved an inflow-outflow analysis, in which the losses that have occurred above McMillan due to consumptive use of river water by the salt cedars were isolated. This study covers that section of the river from the Artesia gage to dam site No. 3 and extends over the period from September 1944, when the gage at dam site No. 3 was established, through August 1946.

(S.D. 109, pp. 44-46)
(emphasis added)

Contrasting the two statements, it is clear that Mr. Tipton's statement at the Commission meeting is simply a convenient shorthand, a loose reference. The lay members of the Commission could not have appreciated the hydrologist's explanation contained in the engineering report. Moreover, it is simply more convenient to say "non-beneficially consumed in 1947" than "shown to be non-beneficially consumed in the 1947 Condition study contained in the Report of the Engineering Advisory Committee."¹

¹Based on similar loose references, New Mexico might as easily argue that the 1947 Condition also includes the year 1948. Another name for the 1947 Condition routing study was "present conditions." It was referred to as "present conditions" during the March and November meetings of the Commission in 1948—thus leading to the conclusion that the 1947 Condition includes 1948. While such an assertion is awkward in light of the name "1947 Condition," it is no more inconsistent with the express provisions of the Compact than New Mexico's assertion of the December 31, 1947, cut-off date.

As recognized by the Master, the 1947 Condition routing study, the study which provided a basis for the Compact, contains no data ~~whatsoever~~ collected during the year 1947. Texas witness Bell testified as follows:

Q (By Mr. Booth [of Texas]). My question, Mr. Bell, as used in the report of the Engineering Advisory Committee Summary on Page 1 of Exhibit 2, was the reference to "All conditions as of present" the same as a reference to conditions as of the year 1947?

A I am not sure I understand the question. The Engineering Advisory Committee considered the 1947 Condition to be the average of the conditions for the years 1940 to 1946 and that is what they called present conditions, and the study is labeled the 1947 Condition.

Q All right, sir. Then the question that I had asked when the objection was raised, was the 1947 Condition that you have just described, was that the actual conditions in the year 1947, or was that something different?

A Well, there was no 1947 data used in any of these operation studies.

SPECIAL MASTER: Say that over again. There was no actual data of 1947 in any of these studies?

THE WITNESS: No, sir. They stopped at the year 1946, Your Honor. (Tr. 410-411).

If a specific cut-off date must be chosen, clearly the Master's decision to choose January 1, 1947, is appropriate in light of the fact that data from the year 1947 was not considered in the 1947 Condition routing study. His decision represents an attempt to honor, to the ex-

tent permitted by the facts, the loose references of the compact negotiators. Extension beyond that date, however, cannot be justified.

New Mexico's brief lightly passes over her second basis for asserting the December 31, 1947, cut-off date, i.e., that 1947 data was used in S.D. 109. (See, New Mexico's Objections, p. 44). New Mexico notes that the Inflow-Outflow Manual utilized 1947 data for Plates No. 5-10. (S.D. 109, pp. 160-166). New Mexico, however, fails to note the purposes of these relationships or the drafters' instructions pertaining to them. Referring to Plates No. 5-10, the Inflow-Outflow Manual states:

The committee recommends that correlation curves and tables be prepared for the reaches of the river between Santa Rosa and Alamogordo Dam, Alamogordo Dam and Acme gaging station, Acme gaging station and Artesia gaging station, Artesia gaging station and Carlsbad gaging station, Carlsbad gaging station and the New Mexico-Texas State line, and Alamogordo Dam and Carlsbad gaging station. The committee is submitting as a part of this report for the above reaches of river the inflow-outflow relationship in the form of graphs for 3-year-successive means for the period 1938 through 1947. While in general the correlation of the points on these graphs is sufficiently good to permit the establishment of correlation curves, yet the committee believes that more years of streamflow record should be available before such curves are established.

(S.D. 109, p. 151)

These relationships were to be used in determining departures in the various subreaches of the river. They

were submitted in tentative form, including 1947 data, with the recommendation that additional data from subsequent years be used to complete them and allow the establishment of curves. The inclusion of 1947 data in these plates is no more significant than the suggested inclusion of other post Compact data. It contributes nothing to New Mexico's argument on the cut-off date.

New Mexico suggests two pieces of the Commission's administrative history which, in her view, support the December 31, 1947, cut-off date—the Review of Basic Data and the Commission's decision to obtain aerial photographs of the basin in 1950. In the Review of Basic Data, at least, the Commission did give a straightforward indication that, in 1961, it thought the year 1947 was included in the 1947 Condition; it included the year 1947 in the Review of Basic Data's new 1947 Condition routing study. Due to its contradiction by other administrative and negotiating history (discussed *infra*, pp. 14-18), the significance of the Review of Basic Data on this point is dubious. The Review of Basic Data was approved by the Commission in 1961. It, essentially, re-worked the 1947 Condition routing study contained in the original Report of the Engineering Advisory Committee. Nevertheless, as the Master has earlier noted (Report of the Special Master on his Decision and Supplemental Decision Regarding the Affirmative Defenses of New Mexico to the Complaint of Texas, p. 26), the review was incomplete as adopted. Texas has since refused to complete it because it amounts to a redefinition of the 1947 Condition and is beyond the authority of the Commission. Moreover, the Master has properly ruled that Texas is not bound by the review. (Master's Report, p. 40-41).

In arguing her second administrative history point, the Commission decision to obtain aerial photographs of the basin in 1950, New Mexico embarks on her first

major excursion outside the record. New Mexico states that the engineers obtained these photographs, then interpolated with earlier 1946 photographs to determine the 1947 Condition. (New Mexico's Objections, pp. 44-45). Moreover, she intimates that the purpose of this interpolation was to determine irrigated acreage in the year 1947. So far as Texas can determine from its review of the record, the sole purpose of obtaining the 1950 photographs was to determine the extent that the salt cedar growth had spread since 1946. At its January 16, 1951, meeting the Commission's Engineering Advisory Committee accepted the photographs from the contractor. (Stip. Ex. 2, 1/16/51 Min., pp. 3-4). At its May 5, 1951, meeting the committee recommended that the Commission obtain a set of the 1946 photographs and "proceed with the determination of the extent and character of water-consuming areas of interest to the Commission." (Id., 5/17/51 Min., p. 3). At its October 30, 1951, meeting the committee reported that Mr. Lowry had visited several of the locations on the ground and was working on the project. (Id., 10/30/51 Min., p. 3). In its annual report to the Commission, in 1951, the engineering committee recommended that the Commission "cause to be made a ground survey of areas covered with water-loving vegetation." (Id., 1951 Report of EAC, p. 2). In that same report the committee stated that Mr. Lowry had been retained by the Commission "to determine the extent and classification of water consuming areas along the Pecos River." (Id., p. 7). A report by Mr. Lowry on the salt cedar acreage and density was apparently submitted at the January 17, 1952, meeting (Id., 1/17/52 Min., pp. 8-9), followed by maps of the 1946 and 1950 salt cedar conditions which were submitted and discussed at the committee's January 21, 1953, meeting. (Id., 1/21/53 Min., pp. 1-2).

At no instance in the record is there an indication that the aerial photographs served any other purpose than the documentation of the spread of salt cedars in

the basin. Such action has nothing to do with the 1947 Condition cut-off date; it is necessary to document the growth of salt cedars because the Compact requires Texas to assume the burden of such increased natural losses due to salt cedar growth.

Little more need be said concerning New Mexico's two remaining arguments for the December 31, 1947, cut-off date. The explanation for Texas' failure to raise the issue has been discussed above. (*supra*, p. 5-6). Counsel for Texas is certainly guilty of loose references to "conditions in 1947"; these references have no particular significance and make similar references by Mr. Tipton all the more understandable. The excluded testimony of New Mexico witness Erickson has been reproduced in New Mexico's Objections. (pp. 46-47). Its speculative nature is clear; the Master properly excluded it.

Significantly, while New Mexico asserts that the record is totally void of support for the Master's ruling, two significant portions of the record directly refute New Mexico's contention. The first comes from the history of negotiations of the Compact, from the same March 10, 1948, meeting which is extensively quoted in New Mexico's Objections. Although the proposal under discussion at that meeting was New Mexico's 1947A proposal, there is a clear indication that the New Mexico negotiators did not intend for even that proposal to include all uses of water going on in 1947. At the close of the meeting, the following exchange occurred:

MR. BLISS [New Mexico]: "Mr. Chairman, there is one point which I might touch on to make the record clear. Col. Spence, this morning, mentioned the present drilling of wells in the area north of Roswell which they saw as they passed through by car the other day. That

area was discovered outside of the declared Roswell basin last year [i.e., 1947] by three or four land owners who drilled pioneer holes and obtained shallow water. Since then there has been a scramble by the landowners to get as much development as possible initiated before the State Engineer could act to declare and close that basin. Just as soon as I conferred with the Geological Survey, with whom I consult in delimiting ground water basins and defining their boundaries, the basin was declared and closed. There are, however, a number of developments which were initiated prior to the closing of the basin, which, under New Mexico law, probably have the valid right to proceed to develop, and I am sure that those are the developments which they saw as they were passing through the area."

COL. SPENCE [Texas]: "I appreciate those remarks, because it is enlightening. I am wondering how many potential areas that were not closed in 1937² might want to get under the line before they are closed?"

MR. BLISS: "Last year [i.e., 1947] there was considerable development in the Carlsbad area involving the drilling of wells for supplemental use on lands with valid rights within the Carlsbad Irrigation District and also on new lands outside of the district. Last fall the basin was declared and closed to the development of wells for the irrigation of new lands. We do, however, permit additional drilling and pumping to supply supplementary water to those lands

²1937 is the year the New Mexico State Engineer closed the Roswell groundwater basin to further development pursuant to 1931 state statutory authority. (S.D. 109, pp. 3-4).

with valid rights. As far as I know, these are the only two areas where additional development is practicable in the Pecos Basin. If others do develop, they will have to be taken care of as they appear."

* * * *

MR. TAMM [Texas]: "I would like to ask Mr. Bliss if pumping from the new wells for supplemental supply in the Carlsbad area and new wells in the Roswell area is part of the right you are trying to establish?"

MR. BLISS: *"No, I would not say that, Mr. Tamm. I think that those new developments would have to be reflected as such in any schedule. I am not trying to say that they have established rights which could be recognized as present conditions."*

COL. SPENCE: "In other words, those would have to be accounted for?"

MR. BLISS: "Yes, that is my offhand opinion."

(Stip.Ex. 4(a), March 10-11, 1948, Min., pp. 64-66.)
(emphasis and bracketed materials supplied)

A more clear, direct indication of intent is hard to imagine. The New Mexico Commissioner is clearly saying that these irrigation wells, installed during 1947, are not included within his proposal of the 1947A Condition. Disregarding for the moment New Mexico's attempt to equate the 1947 Condition with the 1947A Condition, it seems obvious that uses not protected under the 1947A Condition would not be protected under the 1947 Condition. This refutes New Mexico's conten-

tion that all uses developed prior to December 31, 1947, should be protected by the 1947 Condition.

The second piece of evidence directly supporting the Master's ruling regarding the cut-off date comes from the administrative history of the Pecos River Commission. Part of the program adopted by the Pecos River Commission at its second meeting, December 9 and 10, 1948, was:

2. Proceed with inflow-outflow determinations in accordance with Article VI of the Compact and in conformity with the inflow-outflow manual. Inflow-outflow computations shall be made for the river sections listed in the inflow-outflow manual (p. 151 of the Senate Document 109) for three year periods commencing with the period 1947-1949.

(Stip.Ex. 4(b), Min. of
the PRC, p. 7)

It is significant that the Commission directed that the annual administrative computations begin with the three-year period, 1947-1949. It will be recalled that the annual computation involves the use of a three-year running average. This early action by the Commission places the year 1947 squarely within the post Compact administrative period.³ Such Commission action, again,

³New Mexico might be expected to respond that inclusion of the year 1947 in the post Compact administrative period is simply a happenstance resulting from the requirement of the three-year average. This, however, is not the case. Had the Commission directed that computations be prepared for the years 1945-1947 and 1946-1948, in addition to the 1947-1949 computations, it might appear that the action was simply designed to update the Inflow-Outflow Manual's incomplete relationships, or to carry forward the prior computations. The omission of these years from the Commission's direction, however, places the year 1947 in the same category as other post Compact years.

directly refutes New Mexico's argument that the cut-off date for the 1947 Condition should be December 31, 1947.

B. The Master Correctly Ruled That New Mexico Is Liable For Base Inflow Depletion.

The Master's ruling on the question of base flow, or base inflow, appears to be the only major feature of his decision which distinguishes his definition of the 1947 Condition from that advocated by New Mexico in her "use theory." New Mexico's argument in her groundwater objection is yet another attempt to resurrect the "use theory" in new clothing.

As best Texas understands New Mexico's new groundwater/use theory argument, it runs as follows: New Mexico never really gave up on its 1947A proposal; that proposal was embodied in the nine-point agreement reached at the November 8-13, 1948, meeting of the negotiating commission; it was incorporated in the nine-point agreement, and subsequently in the Compact, by means of using the word "equivalent" in connection with the 1947 Condition and by virtue of the salvaged water provisions in both the agreement and the Compact, moreover; the gradual groundwater depletion of the 1947A Condition was too cumbersome to adapt to the inflow-outflow method of accounting and was left to be resolved at a later date.

New Mexico is wrong on all counts. Beginning with the negotiating history, it is clear that the Master has accurately described the progress of negotiations. The 1947A proposal was advanced by New Mexico at the March 10-11, 1948, meeting. It was subsequently studied by the engineers and designated the "1947A Condition." It was expressly rejected by Texas at the November, 1948, meeting. (S.D. 109, p. 96). The only significant difference between the 1947 and 1947A Conditions is the treatment of groundwater contributions to the river

—the former showed groundwater contributions as they existed around 1947, while the latter showed groundwater contributions having ceased as a result of groundwater pumping going on during the negotiating period. In spite of the rejection of the 1947A Condition, New Mexico quotes extensively from the transcript of the March 10-11, 1948, meeting describing the New Mexico proposal. This Court should be aware that the statements attributed to Mr. Bliss and Mr. Tipton at pages 61-65 and 67-70 in New Mexico's Objections come from the March meeting and are describing the 1947A Condition proposal, advanced by New Mexico at that meeting.⁴

The difficulty with New Mexico's argument equating the 1947A Condition to the nine-point agreement is, perhaps, best demonstrated by the testimony of New Mexico negotiator/witness Erickson attempting to make the same point:

Q [Mr. Caroom] All right. So in terms of what is in Senate Document 109, we jump from the New Mexico November 11 counteroffer of the 1947-A Condition to the November 13 agreement on the 1947 Condition as recorded in Senate Document 109 or in the report of the Engineering Advisory Committee, is that correct?

A [Mr. Erickson] Yes, but —

Q I beg your pardon?

⁴At page 69 of her Objections, New Mexico incorrectly indicates that Mr. Tipton's statement on the "so-called '1947 Condition'" is from S.D. 109. This is undoubtedly an inadvertent clerical error, perhaps motivated by wishful thinking. The statement appears at pp. 49-50 of the March, 1948, negotiating transcript and is describing the 1947A Condition. These transcripts are contained in Stip. Ex. 4(a).

A I think you can't limit it to the 1947 Condition. You have to take all of the nine items together.

Q I am sorry, would you say that again and expand a little?

A The proposition that was offered that finally became a compact is on page 97 and includes nine different steps and you would have to look at those as — take it by the four corners, you have to get all of it, you can't take the '47 Condition out of that.

Q All right, Mr. Erickson. Within these nine items that appear on Page 97, the nine items which were agreed upon as the basis for the Compact, can you tell me what has happened to the groundwater depletion which was reflected by the 1947-A counteroffer?

A I think it is to be offset by the salvaged water.

Q Well, let's leave salvage water out for the moment.

A You can't. Can't be left out. They go together. Let me call your attention to — we talked about '47-A and the 1947 Condition — no, '47-B and the 1947 Condition, and you will find that the average flow crossing the State Line are almost identical. The dependable water supply from Red Bluff Reservoir is identical. The average shortages in Carlsbad are nearly the same.

Q Which of those two was accepted as the basis for the Compact, the 1947 Condition or the 1947-B?

A 1947 Condition, with the rest of the eight items in that Compact. You can't separate them.

Q Under the 1947 Condition, which state assumes the burden of groundwater depletion?

A Well, I'm not sure the burden is assumed, if the Compact works as it was intended to work.

Q Would you elaborate on that a little bit for me, please?

A Well, the groundwater depletion, as I indicated before, is a very slow process, a long, continuing thing, and the effort that was attempted here was complete cooperation between the states to salvage the groundwater, get rid of the salt cedars, bypass the salt cedars, build flood reservoirs, a cooperative effort. You can't separate them from the 1947 Condition.

Q Mr. Erickson, does the 1947 Condition, as it appears in the Engineering Advisory report, the Summary of Operations study, show a 1947 Condition groundwater contribution?

A Yes, it does.

Q And is that 1947 Condition groundwater contribution a component of a delivery or the equivalent amount of water due Texas under the 1947 Condition?

A Yes, but so is the salvage of water a component.

Q Does the 1947 Condition Summary of Operations study show any salvaged water in and of itself?

A Not in and of itself, no, sir.

Q So if we consider simply the 1947 Condition study, we see that groundwater contributions make up a part of water received by Texas, do we not?

A That's true, but the Compact doesn't say that. It doesn't limit the obligation to 1947 Condition. It includes, also, the obligation to salvage that water.

* * * *

Q Let me see if I understand your testimony, Mr. Erickson. As I understand what you have been saying, you say that New Mexico assumed the burden of the groundwater depletion and was going to make it up with the gain from the salvaged water?

A I think that's inferred here, yes, sir.

Q What would happen if after the salvage projects were all completed, not enough salvaged water was produced to make up for the groundwater depletion?

A I don't know.

(Tr. 947-952)

Similarly, Mr. Erickson subsequently testified:

Q Mr. Erickson, I would like to go back for just a second to the interrelation of base flow and salvaged water. As I understand your testimony, the engineers and negotiators realized that the base flow was declining in 1947 due to groundwater pumping.

A Yes, sir.

Q And they entered a compact based upon a 1947 Condition, which included in the 1947 Condition contribution of groundwater as part of the water due Texas under that condition.

A Yes, sir.

Q Now, you said that New Mexico wanted a compact which would protect all existing uses, and I understand your testimony to be that they apparently intended to protect all existing uses by making up for this base flow decline with salvaged water, is that correct?

A That was one way, yes, sir.

(Tr. 1004-1005)

After examination of these passages a clearer picture emerges. New Mexico did intend to protect existing uses; it did so by agreeing to the 1947 Condition and, at the same time, obtaining Texas' agreement to affirmatively work to salvage water in the Pecos River Basin. Nevertheless, it is clear that the Compact places on New Mexico the burden of delivering an equivalent amount of water to that available under the 1947 Condition.⁵ To be sure, the term "equivalent" allows New

⁵It is noteworthy that there also was considered a 1947B Condition. This condition was developed by the Engineering Advisory Committee and presented in its Supplement to the Report of the Engineering Advisory Committee. (S.D. 109, pp. 139 & 141). It presents the 1947 Condition with the groundwater contribution fully depleted and all possible water salvaged. It too was rejected as a basis for the Compact. Had the 1947B Condition been the basis for the Compact, New Mexico's discussion of an equitable allocation of the shortage brought about by the lack of salvaged water might make better sense. (See New Mexico's Objections, p. 79). With the 1947 Condition as a basis for the Compact, however, it is clear that New Mexico has assumed the risk that sufficient salvaged water might not become available.

(Continued on next page)

Mexico to utilize salvaged water to fulfill that obligation, but it does nothing to relieve the obligation in the absence of salvaged water.

Even though the Master gave little weight to it (Master's Report, pp. 24-26), Texas believes the agreement is well summarized by the letter of the Acting Secretary of the Interior, Oscar L. Chapman, to Senator O'Mahoney, Chairman of the Senate committee considering ratification of the Compact. The Secretary states:

The compact reflects compromise on some points of difference. On the one hand, New Mexico has agreed to settlement on the basis of "1947 conditions" although the depletion effects of present groundwater pumping in the Roswell area, because of the slow movement of percolating underground waters, will not be reflected in the stream flow until some future date. This is offset by the agreement of Texas that nonbeneficial consumptive use of water, due to non-man-made activities, would not be chargeable against New Mexico in determining her obligation to deliver water at the New Mexico-Texas State line. Both of these provisions are of concern to the Carlsbad project of the Bureau of Reclamation. The interest of that project is protected against the first provision in that article IX was included to insure that any adjustment for the future ef-

At page 66 of her Objections, New Mexico attempts to explain the inclusion, by Plate No. 2 and the Inflow-Outflow Manual, of the 1947 Condition groundwater contribution as a part of the stateline delivery obligation. She suggests that it would have unfairly penalized Texas to omit it prior to the actual depletion, and that Plate No. 2 could not have been constructed to reflect the gradual base inflow depletion. This is simply incorrect. If the groundwater contribution had been included as a part of Plate No. 2's index inflow, the size of the index inflow would get progressively smaller as the base inflow was depleted—resulting in a progressively smaller stateline delivery obligation.

fect of present depletions would be borne by appropriators junior to the Carlsbad project. Strict enforcement of article IX by the State of New Mexico will, of course, be necessary to protect the project. The non-man-made depletions, to which reference is made, are primarily uses by native vegetation principally salt cedars. The validity of the compact will not be adversely affected, even though the estimate of the quantity of water it may be possible to salvage by constructing a bypass canal around the salt cedar area at the head of McMillan Reservoir may not be fully realized.

(S.D. 109, p. xv)

Of particular note is the Secretary's statement that New Mexico agreed to the 1947 Condition even though groundwater depletion due to existing pumping had not yet manifested itself. Moreover, his concern with the protection afforded the Carlsbad Irrigation Project by Article IX of the Compact clearly demonstrates his understanding that "adjustments" (apparently taking the form of reduced water use by junior appropriators in New Mexico) would need to be made in New Mexico if sufficient water were not salvaged to make up for the groundwater depletion.

Finally, New Mexico notes that its 57% of the salvaged water is insufficient to make up for the loss of the groundwater contribution to the river. (New Mexico's Objections, pp. 77-79). When all the numbers are added up it appears that New Mexico would be unable to use any of the salvaged water for other purposes if the groundwater contribution had already been completely depleted. This assertion apparently played a role in the Master's rejection of Secretary Chapman's letter. (Master's Report, pp. 25-26).

The total amount of water lost by continued ground-water depletion roughly equals the amount gained by salvaging water lost to salt cedars under the 1947 Condition. (S.D. 109, p. 141). It is for this reason the 1947B Condition shows roughly the same stateline flows as the 1947 Condition. (Id.).⁶ Obviously, by agreeing to provide Texas 43% of salvaged water New Mexico reduced its ability to completely make up for declining groundwater contributions with salvaged water. Nevertheless, the testimony of New Mexico negotiator Erickson and the letter of Secretary Chapman clearly indicate that this was New Mexico's intent. Perhaps New Mexico negotiators thought that more water could be salvaged, or that the groundwater contribution would not go completely to zero, or that irrigation techniques would become more efficient in the future. Perhaps they simply overlooked the importance of the 43% due Texas; or, perhaps it was the price they paid for Texas' pledge of support in efforts to salvage water. In any case, such speculation is irrelevant.⁷ The Compact

⁶This circumstance demonstrates the ludicrousness of New Mexico's proposed construction of the Compact's definition of "salvaged water." (New Mexico's Objections, pp. 76-77). Article II(h) equates salvaged water with water lost to natural non-beneficial uses, primarily salt cedars, under the 1947 Condition. New Mexico's gloss on the "salvaged water" definition, i.e., no salvaged water exists until after the depletion of groundwater contribution has been balanced by what might otherwise be considered salvaged water, simply makes no sense. If one considers the fact that total salvaged water, as defined by the Compact, will only balance the loss of the groundwater contribution, it is evident that New Mexico's suggested construction removes the existence of salvaged water from the realm of possibility. The mere fact that the Compact negotiators bothered to define the term and provide for its allocation refutes New Mexico's proposed construction of the Article II(h) definition.

⁷The most likely explanation may be in Article III(d), which was overlooked by the Master's Report. (pp. 25-26). Only water which is salvaged through joint efforts of the states, or through action of the United States, is subject to the 43/57 apportionment. If New

clearly includes the existing groundwater contribution as part of the 1947 Condition. Likewise, the Compact clearly obligates New Mexico to deliver a quantity of water to the state line which is equivalent to that available under the 1947 Condition. Considering the fact that New Mexico was looking squarely at the possibility of a suit for equitable apportionment before this Court,⁸ and considering the fact that the Compact appeared to allow them to continue existing uses in the immediate future, New Mexico's agreement to these provisions is understandable.

In summary, the negotiating history of the Compact, its legislative history, and testimony adduced before the Master all compel the conclusion that in agreeing to the 1947 Condition New Mexico assumed the burden of supplying Texas water equivalent to that available under the 1947 Condition, including the groundwater contribution reflected by the 1947 Condition. While the Compact invites New Mexico to utilize salvaged water for this purpose, it does not excuse the failure to deliver that quantity of water if sufficient water is not salvaged.

Mexico unilaterally salvages water Article III(d) provides that this belongs entirely to New Mexico. In fact the Kaiser Channel construction, referenced at page 8 of the Master's Report, was such a unilateral action. A large channel was constructed through the McMillan delta so that low and normal flows could pass through the delta without being spread across the acres of salt cedar which make up the delta.

⁸Not only did the Texas legislature authorize suit against New Mexico in 1931, as noted at page 10 of the Master's Report, it again authorized suit by the Texas Attorney General in 1941. Moreover, the legislation authorizing the Texas Commissioner to negotiate this Compact in 1947 specifically provided that, in the event compact negotiations failed, the Texas Commissioner was to report this fact to the Governor and make information available to the Attorney General so that he might initiate legal action. (See, S.D. 109, pp. 5-7; See also, Stip. Ex. 4(a), Minutes of May 28 and 29, 1947, meeting, throughout, where the Texas Commissioner repeatedly emphasizes the alternative of litigation.).

C. Other Matters.

At this stage of the proceedings New Mexico has not given up its use theory argument. For this reason the jargon of the use theory continues to crop up in New Mexico's "Statement of the Case" and her "General Statement of Facts." For this reason Texas must alert the Court to the possibility of being misled by the jargon of the use theory. For example, at page 17 of New Mexico's Objections she refers to "increased depletions by man" and "man's activities undertaken after 1947." Neither of these are the phrases used by the Compact. Article III(a) holds New Mexico responsible for all of man's activities; once the protection afforded New Mexico by the determination of "a quantity of water equivalent to that available to Texas under the 1947 condition" has been exhausted none of man's activities in New Mexico are exempt. New Mexico's reference, at page 24 of her Objections, to "changes in depletion due to man's activities" is similarly suspect.

Another adjunct of New Mexico's use theory is her fixation upon a statement by Mr. Tipton's describing the Article III apportionment. New Mexico has cited his statement, appearing at page 115 of S.D. 109, no less than five times in her Objections.⁹ For the record, Mr. Tipton's explanation of the Article III apportionment is as follows:

There are three types of water that are apportioned. One is the water which is equivalent to that which was being received by Texas under the '1947 condition.' And on the other side of the picture, *by implication*, there is apportioned to New Mexico that which she was using under the '1947 condition.' There is apportioned salvaged water and there is apportioned unappropriated floodwater."

(emphasis added)

⁹See New Mexico's Objections, pp. 21, 54, 55, 63, & 70.

New Mexico would give its apportionment *by implication* preference over the Compact's express apportionment to Texas of water equivalent to that available under the 1947 Condition. As the Master's Report recognized, if New Mexico is apportioned sufficient water to satisfy 1947 uses, Texas cannot possibly receive the same protection because there is simply not enough water for all uses then existing. (Master's Report, p. 38). Moreover, protection of New Mexico's 1947 uses is tantamount to a compact based upon irrigated acreage—a concept which was expressly rejected. (Id., p. 39).

In her description of the administrative history of the Pecos River Commission, New Mexico attempts to paint the picture of immediate attempts to refine the Compact's definition of the 1947 Condition, beginning from the Commission's earliest meetings. (New Mexico's Objections, pp. 27-31). A careful reading of the 1956 Report of the Engineering Advisory Committee, reproduced at pages 28-29 of New Mexico's Objections, reveals: (a) there were problems performing annual administrative computations, especially regarding the calculation of flood inflow, according to the literal directions of the Inflow-Outflow Manual; (b) for this reason the engineering committee decided to examine the original computation of flood inflows in the 1947 Condition routing study; (c) if upon reexamination the original methods appeared satisfactory, annual administrative accounting would be done on that basis; and (d) revisions of the Inflow-Outflow Manual which appeared necessary after this work would be submitted. There is no discussion of revising the 1947 Condition routing study or the revising of the Compact's "description of the 1947 Condition."

Significantly, the reexamination of original computations was conducted by New Mexico engineer Erick-

son. It is appended to the Minutes of the January 18, 1957, meeting of the Inflow-Outflow Subcommittee of the Engineering Advisory Committee. (Stip. Ex. 6). Concerning the 1947 Condition, Mr. Erickson states:

The 1947 Condition

It is clearly shown from the above citations¹⁰ from the Compact that the 1947 condition is to be taken as defined in the Engineering Advisory Committee's report and appendices thereto and by the material found in the work sheets of that committee which were developed during the Compact negotiations.

Actually the conditions incorporated in those studies covered the period from the time of the Joint Investigation (1939-40) to about 1947. In other words some of the 1939-40 data which was gathered during the Investigation was used and other information developed from later records or collected during 1945 and 1946 was applied where deemed necessary. These various conditions (affecting gains and losses on the River) were incorporated into routing studies to define the condition being considered and to form a basis of comparison with other conditions.

(Id., 1/57 Memorandum, p.4)

On the subject of groundwater contribution to the river Mr. Erickson states:

(b) The base inflow to the river between Acme gaging station and the Artesia gaging station. (Although this is here listed with the natural conditions on the River, the base in-

¹⁰The "above citations" are Articles III(a), IV(a), II(f), and II(g). (Id., 1/57 Memorandum, pp. 2-3).

flow is the discharge into the River from the Artesia and shallow ground water basins in the Roswell-Artesia area. As determined by the Task Force it is the flow from the basins as of about 1947 (1939-46, see pp. 48-52, S.D. 109) and reflects the *effect* of the uses of ground water on the base flow as of that time. It does not reflect the *total* uses of ground water as of 1947. Derivation of the 1947 base inflow (average of 1939-46) is explained in a subsequent sub-section of this memorandum entitled "Guadalupe to Artesia Section," and extension of the condition to the period 1905-46 is explained at pp. 48-50 of Senate Document 109. Care must be taken to retain the 1947 base inflow in any reconstruction of or reference to the 1947 condition.

(Id., p.7; emphasis in original)

Moreover, Mr. Lowry, the Texas engineer/negotiator, certified that he had examined Mr. Erickson's report and concurred in it. (Id., p. 16). Thus, in early 1956 there was no dispute on the 1947 Condition or its need for refinement; in fact, there was even an agreement on the groundwater issue which is directly contrary to New Mexico's current position. The only problem then existing was the need to revise the directions for flood inflow computation contained in the Inflow-Outflow Manual.

Following this meeting, the new New Mexico engineer, Mr. Reynolds, refused to approve the annual computations which has been performed in accordance with Mr. Erickson's report. (Stip. Ex. 2, Min. of EAC, 4/2/57, p. 6). At its next meeting, July 29, 1957, the Engineering Advisory Committee requested the advice of the Legal Advisory Committee on two questions. The first, and only pertinent one for our purposes, is as follows:

While the 1947 condition is inviolate, can the inflow-outflow relationship curves shown on pages 153 and 154, Senate Document 109, be changed?

(Id., 7/29/57 Min., p. 1)

Thus, contrary to New Mexico's assertion (New Mexico's Objections, p. 31), the question presented to the legal committee was not whether the 1947 Condition, described in the original engineering report, might be modified. Rather, it was whether two plates in the Inflow-Outflow Manual might be modified. The answer of the legal committee was as follows:

The substantial evidence rule would apply to whether the index inflow vs. outflow curves could be changed. If there is substantial evidence of error or omission, either mutual or unilateral, then corrections could be made. He cautioned the Committee not to make any quick changes, but rather to document very thoroughly any possible changes that would be suggested.¹¹

(Stip. Ex.2, 7/29/57 Min., p.2)

As previously noted (Texas Objections, p. 19) the mutability of the Inflow-Outflow Manual is not contested. The definition of the 1947 Condition is contained in the original Report of the Engineering Advisory Committee, not the Inflow-Outflow Manual.

¹¹As previously, and fully, discussed in Texas' Brief on the 1947 Condition, filed before the Special Master, the Review of Basic Data engineers promptly ignored this advice. They re-worked the entire original 1947 Condition routing study, accepting its values for the various aspects of the 1947 Condition only when they could not come up with a reasonable alternative to replace them.

The liberties New Mexico takes in departing from the record compiled before the Master in this case are truly extraordinary.¹² At one point New Mexico goes so far as asserting, "It is not relevant that there is no evidence in the record. . . ." (New Mexico's Objections, p. 82, note 12). Much of the departure from the record takes the form of citation of the legislative history of 1956 and 1964 legislation pertaining to the Pecos River. (Id., pp. 73-77). While neither relevant nor admissible so far as the 1947 Condition question is concerned, the material lends no particular support to New Mexico's argument.

Two of the departures do, however, cause some concern. First, with no more basis in the record than oral argument of counsel (Id., p. 58), New Mexico repeatedly asserts that its legislature would never have approved a compact which required deliveries based on the existing groundwater contribution. Mr. Tipton's statement, quoted at pages 80-81 of New Mexico's Objections, provides no support for this assertion. Texas has repeatedly relied on this precise language in the past because Mr. Tipton states the nine-point agreement is, "a guaranty by New Mexico not to deplete the flow of the river below essentially present conditions."

Equally troublesome is New Mexico's assertion that the Master's decision will destroy the agricultural economy of the southeastern quarter of the state (Id., pp. 58 & 61) and the loose manner with which New Mexico tosses out large numbers of acres of land which must be taken out of production due to the Master's decision.

¹²An itemized discussion will not be attempted. (See, New Mexico's Objections, pp. 44-45, 49, 58, 61, 73-77, & 81-82.)

Finally, New Mexico faults the Master for excluding evidence of intent she offered through testimony of her compact negotiators while accepting certain documentary evidence offered by Texas as going to "either an offer or counter-offer." (New Mexico's Objections, pp. 82-84). Two points must be made to put this objection in the proper perspective. First, although the Master allowed Texas' documents into evidence, his decision indicates no reliance upon them. Second, the New Mexico intent testimony is in the record, if not admitted as evidence. Yet, rather than referring to the negotiators' testimony before the Master, New Mexico cites their deposition testimony. (Id., p.56).¹⁴ In light of New Mexico's other departures from the record, Texas would suggest that the testimony on intent contains nothing particularly helpful to New Mexico—otherwise it would surely have been brought to the Court's attention. Consequently, if any error exists in the Master's ruling on the New Mexico intent testimony, a contention which Texas denies, it must be harmless error.

¹³Texas might as easily assert that by 1956 only 6,000 acres of its 45,000 acres normally irrigated from the Pecos River were still under irrigation. (Hearing before the Subcommittee on Irrigation and Reclamation of the Committee on Interior and Insular Affairs, United States Senate, 84th Cong., 2d Sess., on S.J. Res. 155, May 10, 1956, p. 34). Or, Texas might bemoan the loss of the Pecos Valley Cantaloupe from the market places of our country, and the resulting incremental decrease in the quality of life for our country as a whole.

¹⁴These depositions were taken by Texas for discovery purposes prior to the witnesses' testimony before the Master. They were neither offered, nor received, into evidence.)

In concluding, Texas would suggest to the Court that the Master's decision on groundwater is sound:

- (a) It recognizes that the Compact was intended to provide Texas protection against depletion of the Pecos River by New Mexico groundwater uses;
- (b) It recognizes that the River could not support both existing ground and surface water uses on a sustained basis; and
- (c) It honors the negotiating history of the Compact, effectuating the agreement of the parties.

Texas would go one step further and suggest that the rationale and negotiating history which form the basis for the Master's groundwater decision buttress the view contained in Texas' Objections to the Master's 1947 Condition decision. Like groundwater depletions, surface water depletions in Texas and New Mexico already exceeded available water supplies in 1947. Like groundwater depletions, the Compact intended to provide Texas some protection against uses in New Mexico. And, as with groundwater depletions, the negotiating history of the Compact—indeed, the Compact's express provisions—indicate that New Mexico's obligation was to be fixed by the original Report of the Engineering Advisory Committee.

All arguments advanced by New Mexico in its groundwater obligation are essentially arguments for the New Mexico use theory. They have all been properly rejected. Yet, rather than adopting the straightforward resolution to the 1947 Condition question suggested by the language of the Compact, the Master concludes that the 1947 Condition refers to a stage of development which is, at least in part, a tangible reality.

The basis for the Master's conviction that the 1947 Condition must refer to a tangible reality is unclear. The Master, himself, in light of the Compact's provisions and negotiating history was unable to be entirely consistent with his notion that the 1947 Condition referred to a tangible reality, i.e., even his definition included the 1947 Condition groundwater contribution and the augmented acreage of the Ft. Sumner and Carlsbad Projects.

Texas suggests that complete consistency can easily be achieved by literal adherence to the Article II(g) definition of the 1947 Condition. Moreover, that definition avoids a major deficiency inherent in the Master's definition of the 1947 Condition. It does not lend itself to further refinement and redefinition that will only result in additional controversy and delay at the administrative level of the Pecos River Commission.

CONCLUSION

Texas respectfully urges the Court to overrule New Mexico's Objections to the Master's ruling on the January 1, 1947, cut-off date and to his ruling on New Mexico's liability for groundwater depletion. Texas further urges the Court to reject the Master's Report insofar as it defines the 1947 Condition as something other than the 1947 Condition routing study contained in the original Report of the Engineering Advisory Committee, and to remand the cause to the Master for an accounting of deliveries under the standard provided by that routing study and a determination of whether any delivery deficiencies are due to man's activities in New Mexico.

Respectfully submitted,

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I, DOUGLAS G. CAROOM, Assistant Attorney General of the State of Texas, one of the Attorneys for the Plaintiff herein, and a member of the Bar of the Supreme Court of the United States, hereby certify that on the _____ day of _____, 1979, I served copies by First Class Mail, Postage Prepaid, to counsel for the State of New Mexico and the United States.

DOUGLAS G. CAROOM

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Supreme Court, U.S.
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MICHAEL RODAK, JR., CLERK

In the Supreme Court of the United States

OCTOBER TERM, 1979

STATE OF TEXAS, PLAINTIFF

v.

STATE OF NEW MEXICO

ON THE REPORT OF THE SPECIAL MASTER

MEMORANDUM OF THE UNITED STATES

WADE H. MCCREE, JR.
Solicitor General
Department of Justice
Washington, D.C. 20530

In the Supreme Court of the United States

OCTOBER TERM, 1979

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STATE OF TEXAS, PLAINTIFF

v.

STATE OF NEW MEXICO

ON THE REPORT OF THE SPECIAL MASTER

MEMORANDUM OF THE UNITED STATES

1. This case involves the respective rights of New Mexico and Texas to the waters of the Pecos River, which rises in New Mexico and flows into Texas. In 1948, Texas and New Mexico entered into the Pecos River Compact, and the following year the legislatures of the two states and Congress ratified this interstate agreement. See Pub. L. No. 91, ch. 184, 63 Stat. 159. The Compact is designed "to provide for the equitable division and apportionment of the use of the waters of the Pecos River * * * [and] to make secure and protect present development within the states" (Art. I, 63 Stat. 160). Toward these ends, the Compact attempts to allocate water rights to New Mexico and Texas and encourages the mutual cooperation of those states through the offices of the Pecos River Commission. See Arts. III-V, 63 Stat. 161-163.

In particular, Article III(a) of the Compact provides that "New Mexico shall not deplete by man's activities the flow of the Pecos River at the New Mexico-Texas state line below an amount which will give to Texas a quantity of water equivalent to that available to Texas under the 1947 condition." 63 Stat. 161. Article II(g), in turn, defines the "1947 condition" as "that situation in the Pecos River Basin as described and defined in the Report of the Engineering Advisory Committee." 63 Stat. 160. Although the Report of the Engineering Advisory Committee states that "[t]he 1947 condition represents present conditions on the river" (S. Doc. No. 109, 81st Cong., 1st Sess. XXVI (1949)), the parties to the Compact have never agreed on precisely what is the "present condition," and the Pecos River Commission, which is composed of one voting commissioner representing each of the two states, has never been able to resolve this dispute.

2. In 1975, Texas filed this suit for injunctive and declaratory relief, claiming that New Mexico was not complying with Art. III(a) of the Compact. 421 U.S. 927. On November 11, 1975, the Court appointed the Honorable Jean S. Breitenstein as Special Master and directed him "to submit such reports as he may deem appropriate." 423 U.S. 942-943.¹ Pursuant to this mandate and following extensive proceedings, the Special Master compiled a report setting forth his views of New Mexico's obligations under the Compact. See *Report of Special Master on Obligation of New Mexico to Texas*

¹We note that the Special Master assisted the Pecos River Compact Commission at the time of its inception and is thus particularly familiar with the circumstances of this suit. See S. Doc. No. 109, *supra*, at 111.

Under the Pecos River Compact (August 13, 1979).² The Special Master concluded that "the 1947 condition is that situation in the Pecos River Basin which produced in New Mexico the man-made depletions resulting from the stage of development existing at the beginning of the year 1947 and from the augmented Fort Sumner and Carlsbad acreage" (Report, *supra*, at 3, 41). Accordingly, the "New Mexico diversions and uses [of the Pecos River], taken as a whole, may not deplete the state line flow below what it was at the beginning of 1947." *Id.* at 43.³

The Special Master rejected Texas' contention that the situation or flow in 1947 is conclusively established by the river routing study captioned "Summary of Operations 1947" which was printed as an appendix to the Report of the Engineering Advisory Committee, S. Doc. No. 109, *supra*, at 144 App. The Special Master

²Although the United States initially intervened in this matter to protect certain federal and Indian water rights (see 423 U.S. 1085), it has now been determined that the resolution of this dispute will not substantially affect the interests of the United States. Accordingly, the United States has generally acted as an observer in the proceedings before the Special Master and has actively participated only to the extent requested by the Special Master. We have nevertheless submitted this memorandum as an aid to the Court and in response to the Court's order of October 15, 1979.

³We do not understand the Special Master to hold that New Mexico must deliver to the stateline the same flow of water that existed in 1947 regardless of the inflow of the Pecos River at the Alamogordo Dam (see Spec. Mast. Rep., *supra*, at 6-7) or other natural conditions. Rather, New Mexico's man-made depletions may not reduce the flow below the 1947 condition. That is, if the actual flow of water and other natural conditions in a particular year replicated the natural conditions in 1947, New Mexico's man-made depletions could not reduce the flow at the stateline below that which actually existed in 1947. See *id.* at 21-22; Art. II(e); S. Doc. No. 109, *supra*, at 112-116.

pointed out that this study was admittedly flawed and that it did not accurately describe the real situation that existed in 1947, as intended by Articles III(a) and II(g) of the Compact (Spec. Mast. Rep., *supra*, at 2, 42). He further noted that “[t]he failure of the routing study as a definition or description is emphasized by the 30 years of controversy which have produced no more than this litigation” (*id.* at 42).

The Special Master also overruled New Mexico’s objections to his construction of the Compact. He first observed that the course of proceedings at the time of the enactment of the Compact demonstrated that the 1947 condition referred to the situation at the beginning of that year and not the end, as contended by New Mexico (*id.* at 43). In addition, he declined to construe the Compact as protecting all New Mexico uses of water and developments in existence in 1947. According to the Special Master, New Mexico’s contention is refuted both by the language of the Compact and by the fact that “[t]he New Mexico contention, if carried to its ultimate, would mean that in time of drought New Mexico could use all the water if that were needed to service New Mexico uses” (*id.* at 2).⁴

3. In our view, the Special Master has correctly defined the “1947 condition” as that term is used in Articles II(g) and III(a) of the Compact. As detailed in the Special Master’s report, the language, legislative history, and purposes of the Compact demonstrate that

⁴We support the Special Master’s request that the Court rule on his report even though he has not finally adjudicated whether New Mexico is in fact overly depleting the Pecos River. The definition of the 1947 condition contained in the report will serve as the basis for extensive engineering studies and all further proceedings in this litigation, and it therefore seems appropriate that the Court resolve this question at this time.

it was intended to place a limit on New Mexico's man-made depletions roughly equivalent to the level of depletions existing on January 1, 1947.⁵ This interpretation of the Compact assures that both states will always have a share of the waters of the Pecos River, although the actual quantity of water available for consumptive use in either state will vary from year to year depending upon natural conditions. See S. Doc. No. 109, *supra*, at 112-118. In contrast, the alternative interpretations of the Compact offered by Texas⁶ and New Mexico⁷ would

⁵The parties do not appear to challenge the Master's conclusion regarding the "augmented Fort Sumner and Carlsband acreage" (Spec. Mast. Rep., *supra*, at 3).

⁶Texas primarily contends that the 1947 condition is immutably described in an appendix to the Report of the Engineering Advisory Committee, captioned Summary of Operations 1947. See S. Doc. No. 109, *supra*, at 144 App. Even Texas recognizes, however, that this study is an artificial construct based on erroneous assumptions and methodologies. It does not constitute an accurate description of the conditions on the river in 1947—the basis for the Compact. See *id.* at XXVI, 112-118. Moreover, the Compact specifically provides that the determination of New Mexico's obligations is governed by "The Report of the Engineering Advisory Committee, *supplemented by additional data hereafter accumulated.*" Art. VI(a), 63 Stat. 163 (emphasis supplied). And the history of the Compact demonstrates that neither the states nor the Commission considered the Summary of Operations as an immutable basis for apportioning the waters of the Pecos River. See, e.g., S. Doc. No. 109, *supra*, at 150-152.

⁷New Mexico urges that Article III(a) entitles it to use as much water as its developments required in 1947. But Article III(a) expressly constitutes a limit on New Mexico's depletions and not a guarantee of New Mexico's water use. New Mexico's position is further refuted by the contemporaneous explanation of the Commission's engineer advisor. See S. Doc. No. 109, *supra*, at 112-116 (remarks of R.J. Tipton). In addition, New Mexico's construction of the Compact would deprive Texas of all waters in times of low flow, thus defeating the express purpose of the

simply not "provide for the equitable division and apportionment of the use of the waters of the Pecos River." Art. I, 63 Stat. 160.

It is therefore respectfully submitted that the exceptions of Texas and New Mexico to the Special Master's Report be overruled and the Report confirmed.

WADE H. MCCREE, JR.
Solicitor General

FEBRUARY 1980

Compact to apportion the waters of the Pecos River equitably and to protect the developments in *both* states. See Art. I, 63 Stat. 160.

Similarly, the Special Master correctly rejected New Mexico's claim that the 1947 condition refers to the situation at the end rather than the beginning of 1947. Article II(g) states that the 1947 condition reflects the circumstances described in the Report of the Engineering Advisory Committee, and that report is derived from data compiled through the end of 1946 and does not include 1947 statistics. See also Tex. Rep. Br. at 11-15.

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IN THE
Supreme Court of the United States

October Term, 1975

STATE OF TEXAS, *Plaintiff*

v.

STATE OF NEW MEXICO, *Defendant*

UNITED STATES OF AMERICA, *Intervenor*

**MOTION TO STRIKE OR FOR LEAVE TO FILE
RESPONSE AND NEW MEXICO'S RESPONSE TO
THE MEMORANDUM OF THE UNITED STATES**

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February 8, 1980



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IN THE
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UNITED STATES OF AMERICA, *Intervenor*

**MOTION TO STRIKE OR FOR LEAVE
TO FILE RESPONSE**

Comes now the defendant, the State of New Mexico, and hereby moves to strike the Memorandum of the United States filed on February 2, 1980, or alternatively for leave to respond thereto, and in support hereof states:

1. On August 20, 1975, the United States moved to intervene and tendered its complaint in intervention, asserting the

need to protect the rights of certain Indian wards in New Mexico, as well as certain interests in federal lands and facilities situated within the Pecos River watershed.

2. On January 26, 1976, the Court adopted the Special Master's recommendations respecting the United States' intervention, effectively ordering that "(a)ll matters going to the relief, if any, to which the United States is entitled and to the impact of such relief on the rights of the two States, or either of them, [are] expressly reserved for later action by the Special Master and recommendation to the Supreme Court."

3. Since December 30, 1975, when the Special Master filed his report respecting the United States' intervention, the United States has not made an appearance or participated in the litigation.

4. Following four years of litigation between the state parties, the Special Master filed his report of September 7, 1979, making his findings respecting the "1947 condition" as that term is used in the Pecos River Compact.

5. The United States did not attend the pre-trial, trial, or post-trial proceedings and is not privy to the evidence adduced by Texas and New Mexico.

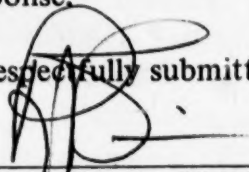
6. The Court's order of October 15, 1979, provided for the filing of exceptions to the Master's report, together with supporting briefs, by November 29, 1979; reply briefs were to have been filed by December 29, 1979.

7. The United States' memorandum of February 2, 1980, disregards the Court's order of January 26, 1976, asserts no exceptions pursuant to the Court's order of October 15, 1979, and is, in any event, untimely.

8. The memorandum is factually incorrect, tending to prejudice the State of New Mexico.

Wherefore, the State of New Mexico prays that the United States' memorandum be stricken or that New Mexico be granted leave to file her response.

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'RAS', written over a horizontal line.

RICHARD A. SIMMS
Special Assistant Attorney General
New Mexico Interstate Stream
Commission
Room 101, Bataan Memorial Building
Santa Fe, New Mexico 87503

IN THE
Supreme Court of the United States

October Term, 1975

No. 65, Original

STATE OF TEXAS, *Plaintiff*
v.
STATE OF NEW MEXICO, *Defendant*
UNITED STATES OF AMERICA, *Intervenor*

**NEW MEXICO'S RESPONSE TO THE MEMORANDUM
OF THE UNITED STATES**

Apparently, the United States' memorandum is based upon the Special Master's report, the briefs of Texas and New Mexico, and Senate Document 109, one of the many exhibits introduced by the state parties. The United States did not appear at or monitor trial, has not reviewed the exhibits, and has not otherwise availed itself of the evidence. Notwithstanding the Court's order of January 26, 1976, which segregated the interests of the United States "for later action by the Special Master and recommendation to the Supreme Court," the United States is now urging that the exceptions

of Texas and New Mexico be overruled and the Master's report confirmed.¹

Perhaps because the United States' vantage point is rather remote, its analysis of "the alternative interpretations of the Compact offered by Texas and New Mexico" is essentially unfounded and wrong. (Memorandum, p. 5). Coincidentally, the United States' memorandum tends to prejudice New Mexico.

Ignorant of the administrative history of the Pecos River Commission, the United States explains:

In particular, article III(a) of the Compact provides that "New Mexico shall not deplete by man's activities the flow of the Pecos River at the New Mexico-Texas state line below an amount which will give to Texas a quantity of water equivalent to that available to Texas

1. Somewhat anomalously the United States explains that it now has no interest in the lawsuit, but that it feels compelled to express its views on the merits of the dispute between the states:

Although the United States initially intervened in this matter to protect certain federal and Indian water rights (see 423 U.S. 1085), it has now been determined that the resolution of this dispute will not substantially affect the interests of the United States. Accordingly, the United States has generally acted as an observer in the proceedings before the Special Master and has actively participated only to the extent requested by the Special Master. We have nevertheless submitted this memorandum as an aid to the Court and in response to the Court's order of October 15, 1979. (Memorandum, p. 2).

Aside from the questionable propriety of the United States' gratuitous opinion, we should point out that the United States has been a very distant observer. It has done nothing in this litigation except respond to the Master's inquiry respecting whether he might file an interlocutory report.

under the 1947 condition." 63 Stat. 161. Article II(g), in turn, defines the "1947 condition" as "that situation in the Pecos River Basin as described and defined in the Report of the Engineering Advisory Committee." 63 Stat. 160. Although the Report of the Engineering Advisory Committee states that "[t]he 1947 condition represents present conditions on the river" (S. Doc. No. 109, 81st Cong., 1st Sess. XXVI (1949)), the parties to the Compact have never agreed on precisely what is the "present condition," *and the Pecos River Commission, which is composed of one voting commissioner representing each of the two states, has never been able to resolve this dispute.* (Memorandum, p. 2, emphasis added).

The fact of the matter is that the Pecos River Commission did resolve this dispute after twelve years of continuing, cooperative investigation into the 1947 condition. On January 31, 1961, the commission formally adopted the product of the states' mutual effort, i.e., the Review of Basic Data, as "findings of fact of the Commission" pursuant to Art. V(d) 5-8. Based upon the Review, the State of Texas fully concurred again on November 9, 1962, in the formal commission finding that the gross indicated departure potentially chargeable to New Mexico for the years 1950 through 1961 was only 5,300 acre feet. The amount was so small that Texas never sought to establish how much, if any, of the indicated departure was chargeable to New Mexico as having been caused by the activities of man. *See*, Art. III(a) and New Mexico's Objections to the Report of the Special Master and Brief in Support Thereof, pp. 16-17.

In the process of reanalyzing the 1947 condition in order to eliminate the engineering and arithmetical errors that distorted it in the original engineering studies, the Pecos River Commission necessarily construed Art. III(a), Art. II(g), and Art. VI(a) as they relate to the responsibilities of the commission and the

apportionment of Pecos River water. As in the interpretation of a contract, the meaning the parties attribute to the words and provisions of a compact governs the obligations assumed in the agreement. *Petty v. Tennessee-Missouri Bridge Commission*, 359 U.S. 275 (1959). Most recently, the Ninth Circuit Court of Appeals applied this view in *California ex rel. Younger v. Tahoe Regional Planning Agency*, 516 F.2d 215 (9th Cir. 1975), cert. den. 423 U.S. 868 (1975). In that case, California, one of the two states that had by compact established the interstate Lake Tahoe Planning Agency, sued the interstate agency of which the state itself was a part, claiming that the agency had not followed the interstate compact pursuant to which it operated. Substantively, the case involved a potentially ambiguous compact provision respecting the majority vote necessary for the agency to take "action." The court held that mutually adopted compact agency rules and regulations cured whatever ambiguity there might have been in the authorizing compact. The court said:

This regulation evidences TRPA's own construction of the disputed statutory provisions and we should follow the construction by those charged with the statute's execution unless there are compelling indications that it is wrong. (516 F.2d, at 219).

In sum, the United States' memorandum is incorrect in asserting that the Pecos River Commission "has never been able to resolve this dispute." (Op. cit., p. 2). Not only did the commission resolve the dispute engineeringly, but also as regards the meaning of the compact. Despite the holding of this Court that an individual state cannot take it upon itself to define its obligations under a compact (*Dyer v. Sims*, 341 U.S. 22 (1950)), Texas attempted in 1974 to unilaterally repudiate the mutual construction of the compact to which it had agreed for 26 years. It is bad enough that Texas seeks to avoid the legal consequences of the administrative history of the Pecos River

Commission; the United States should not now be permitted to fuel that fire with unfounded statements of fact.

The United States is also incorrect in its assertion that "New Mexico's construction of the Compact would deprive Texas of all waters in times of low flow. . . ." (Memorandum, p. 5, f. 7). Again siding with Texas, the United States argues that "New Mexico's contention is refuted both by the language of the compact and by the fact that '(t)he New Mexico contention, if carried to its ultimate, would mean that in time of drought New Mexico could use all the water if that were needed to service New Mexico uses.' " (*Id.*, p. 4, citing the Master's Report of September 7, 1979, p. 2).

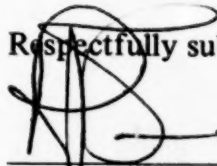
It is clear that the language of the compact supports New Mexico rather than refuting her position. *See*, New Mexico's Objections to the Report of the Special Master and Brief in Support Thereof, pp. 41-83, and New Mexico's Reply to Texas's Objection, pp. 5-25. It is Texas's contention that is not supported, either by the express terms of the compact, its explanation by Mr. Tipton, or by its administrative history. The United States is simply not familiar with the evidence.

The notion that New Mexico is effectively contending that she can rightfully dry up the river at the stateline is naive as well. As noted in our brief in support of our objections, the compact does not explicitly address the situation in which water salvage is not effected to offset the projected post-1947 base inflow depletion, but there can be no question that it was contemplated that the supply in both states would suffer, as in fact it has. Texas would lose the estimated 47 per cent of the base inflow as measured at Avalon that reached the state line before that depletion occurred. While New Mexico is entitled to continue operation of the works constituting the 1947 condition stage of development in New Mexico, she would not be able to increase storage capacity or change the source of

supply of uses from surface water to ground water if such modifications would result in a depletion at the state line greater than would have resulted from continued operation of the works constituting the 1947 condition stage of development. Consequently, when the base inflow is completely depleted, and if water salvage has not been effected to offset that depletion, New Mexico's supply would be decreased by 53 per cent of the post-1947 base inflow depletion, assuming all other things would remain unchanged, as we must to intelligibly discuss the matter. The fact is that *both* states suffer, and the compact, unfortunately, offers no solution except to mandate water salvage in New Mexico by *both* states. (See, S.D. 109, p. 120 and New Mexico's Objections to the Report of the Special Master and Brief in Support Thereof, pp. 71-80.)

In conclusion, the United States' memorandum is not only uncalled for and untimely, it is wrong and prejudicial. It comments on the Special Master's report without the benefit of the evidence adduced by the parties, and in view of the United States' own statement that it has virtually no interest in this lawsuit, the memorandum is unwarranted and completely disregards the Court's orders of January 26, 1976 and October 15, 1979.

Respectfully submitted,



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CERTIFICATE OF SERVICE

Pursuant to Rules 42(5) and 33 of the Supreme Court Rules,
I certify that three copies of the foregoing motion and response
were served upon counsel of record on February 8, 1980.

A handwritten signature in black ink, appearing to be 'RAS' with a horizontal line extending from the end.

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New Mexico Interstate Stream Commission
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